

**Initial Study/Negative Declaration for the
Amendments to Bay Area Air Quality
Management District Regulation 8, Rule 45:
Motor Vehicle and Mobile Equipment Coating Operations**

Prepared for:

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Chapter 1

Introduction

Purpose of this Document

This Negative Declaration (Neg Dec) assesses the environmental impacts of the proposed adoption of amendments to Regulation 8, Rule 45 – Motor Vehicle and Mobile Equipment Coating Operations - by the Bay Area Air Quality Management District (BAAQMD or District). This assessment is required by the California Environmental Quality Act (CEQA) and in compliance with the state CEQA Guidelines (Title 14 California Code of Regulations §15000 et seq.). A Neg Dec serves as an informational document to be used in the decision-making process for a public agency that intends to carry out a project; it does not recommend approval or denial of the project analyzed in the document. The BAAQMD is the lead agency under CEQA and must consider the impacts of the proposed rule amendments when determining whether to adopt them. The BAAQMD has prepared this Neg Dec because no significant adverse impacts are expected to result from the proposed rule amendments.

Scope of this Document

This document evaluates the potential impacts of the proposed amendments on the following resource areas:

- aesthetics,
- agricultural resources,
- air quality,
- biological resources,
- cultural resources,
- geology and soils,
- hazards and hazardous materials,
- hydrology and water quality,
- land use planning,
- mineral resources,
- noise,

- population and housing,
- public services,
- recreation,
- transportation and traffic, and
- utilities and service systems.

Impact Terminology

The following terminology is used in this IS/ND to describe the levels of significance of impacts that would result from the proposed rule amendments:

- An impact is considered *beneficial* when the analysis concludes that the project would have a positive effect on a particular resource.
- A conclusion of *no impact* is appropriate when the analysis concludes that there would be no impact on a particular resource from the proposed project.
- An impact is considered *less than significant* if the analysis concludes that an impact on a particular resource topic would not be significant (i.e., would not exceed certain criteria or guidelines established by BAAQMD). Impacts are frequently considered less than significant when the changes are minor relative to the size of the available resource base or would not change an existing resource.
- An impact is considered *less than significant with mitigation incorporated* if the analysis concludes that an impact on a particular resource topic would be significant (i.e., would exceed certain criteria or guidelines established by BAAQMD), but would be reduced to a less than significant level through the implementation of mitigation measures.

Organization of This Document

The content and format of this document, described below, are designed to meet the requirements of CEQA.

- Chapter 1, “Introduction,” identifies the purpose, scope, and terminology of the document.
- Chapter 2, “Description of the Proposed Rule,” provides background information on Regulation 8, Rule 45, describes the proposed rule amendments and describes the area and facilities that would be affected by the amendments.
- Chapter 3, “Environmental Checklist,” presents the checklist responses for each resource topic. This chapter includes a brief setting description for each resource

area and identifies the impact of the proposed rule amendments on the resources topics listed in the checklist.

- Chapter 4, “References Cited,” identifies all printed references and personal communications cited in this report.

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Chapter 2

Description of the Proposed Rule

Background

The Bay Area Air Quality Management District (District) regulates Volatile Organic Compound (VOC) emissions from automotive refinishing and mobile equipment coating operations under Regulation 8, Rule 45 (Rule 8-45). Currently, Bay Area automotive refinishing and mobile equipment coating businesses that have permits to operate and are subject to Regulation 8-45 emit 5.8 tons of VOC per day into the region's atmosphere. Facilities that engage in automotive refinishing include auto body repair shops, automotive paint shops, auto dealerships, public transit agencies, airports, public works departments and educational facilities. Also, mobile equipment manufacturers that produce buses, heavy duty trucks, trailers, and trucks are subject to Rule 8-45.

Regulation 8-45 was adopted June 7, 1989, and addressed VOC emissions from automotive refinishing operations. The rule initially required the use of spray equipment with higher transfer efficiency for primer coats in July 1990 and for all coatings in January 1991. VOC standards for the various affected coating categories were phased in over three increments, with each increment becoming increasingly more stringent. Each increment became effective on January 1, 1990; January 1, 1992; and January 1, 1995.

Rule 8-45 was significantly amended on November 2, 1994 as a result of a technology assessment of technology forcing limits set in 1989. The VOC limits were revised to reflect technological progress and to give manufacturers adequate time to bring reformulated products to market. The revision also included incorporating additional VOC standards, which included a 0.6 lb/gal VOC limit for surface preparation solvent, a 0.5 lb/gal VOC limit for temporary protective coating, and a volume limitation on precoat. A new requirement that topcoats be applied in a spray booth or within a particulate filtration system was also added to the rule.

Rule 8-45 was amended again on January 6, 1999, primarily to allow the use of a precoat under non-water-borne primer-surfacer to prevent corrosion of the metal surface of an auto body. Currently, Rule 8-45 sets VOC limits for automotive refinishing coatings and solvents used in automotive refinishing operations.

Objectives

The objective of the proposed rule amendments would reduce VOC emissions from automotive refinishing by incorporating the VOC limits and operational standards contained in the California Air Resources Board (CARB) Suggested Control Measure for Automotive Coatings (SCM). The SCM was developed in 2005 as a guideline to be used by California air districts in amending their automotive refinishing rules. The key

objective of CARB's SCM are to: (1) Improve the overall effectiveness and enforceability of district rules; (2) improve consistency among districts rules; and (3) achieve VOC emission reductions.

The District is considering amendments to Rule 8-45, to further reduce VOC emissions from automotive refinishing and mobile coating operations. The Bay Area is not yet in attainment of state ozone standards, so the District must implement all feasible measures to reduce emissions of pollutants that form ozone, nitrogen oxides (NO_x) and VOCs, also referred to as reactive organic gases (ROG). Amendments to Rule 8-45 were included as Control Measure SS1 in the Bay Area 2005 Ozone Strategy.

The U.S. Environmental Protection Agency (U.S. EPA) has set primary national ambient air quality standards for ozone and other air pollutants to define the levels considered safe for human health. CARB has also set California ozone standards. The Bay Area is a non-attainment area for the state one-hour and eight-hour ozone standards and federal eight-hour ozone standard. Under State law, ozone non-attainment areas must prepare plans showing how they will attain the state standards. The 2005 Ozone Strategy is the most recent planning document for the State ozone standards. Because the Bay Area is a marginal non-attainment area for the national one-hour standard, the least severe non-attainment classification, the BAAQMD is not required to prepare an attainment plan for the national standard.

Proposed Coating Categories and VOC Limits and Standards

The proposed amendments to Rule 8-45 are intended to reduce VOC emissions from automotive refinishing operations. The proposal is based on CARB's 2005 SCM and contains provisions designed to address mobile automotive refinishing operations. The SCM and proposed rule amendments will prohibit anyone from applying, manufacturing, blending, repackaging for sale, supplying, selling, or offering for sale, distributing, or possessing (at an automotive refinishing facility) any coating that does not meet the VOC limits. The proposed amendments to Rule 8-45 incorporate the VOC limits and definitions contained in the CARB's SCM for automotive coatings and would become effective on October 1, 2009 and January 1, 2010. Several categories of coatings would be combined. The proposed changes are summarized in Table 2-1. The BAAQMD is not including reactivity limits as an option for compliance as part of the proposed amendments to Rule 8-45.

TABLE 2-1

**Current and Proposed Coating Categories and VOC Limits
Automotive Refinishing Operations**

Rule 8-45 Coating Categories	VOC Limits (grams/liter)		Proposed Coating Categories ^c	VOC Limits (g/l)
	Group I ^a	Group II ^b	Effective Dates: October 1, 2009 or January 1, 2010^c	
Anti-glare/Safety Coating	--	--	Color Coating	420
Camouflage	--	420	Color Coating	420
Multi-Stage Topcoat System	540	--	Clear Coating	250
			Color Coating	420
Pretreatment Wash Primer	780	780	Pretreatment Coating	660
Precoat	580	580	Primer	250
Primer & Primer Surfacer	250	250		
Primer Sealer	420	420	Primer Sealer	250^c
Metallic/Iridescent Topcoat	520	420	Single-Stage Coating	340^c
Solid Color Topcoat	420	--		
Topcoat	--	420		
Temporary Protective Coating	60	60	Temporary Protective Coating	60
Specialty Coatings (limited by volume)	840	840	Multi-Color Coating	680
			Truck Bed Liner Coating	310
			Underbody Coating	430
			Uniform Finish Coating	540
			Adhesion Promoter	540^c
			Any Other Coating Type	250
Surface Preparation Solvents	72	72	Solvents	25
Solvents for Plastics Surface Preparation				

a. Group I refers to vehicles such as passenger cars, large/heavy duty truck cabs and chassis, light and medium-duty trucks and vans, and motorcycles.

b. Group II refers to public transit buses and mobile equipment.

c. The effective dates for the **bolded categories – primer sealer, single stage coating and adhesion promoter** is January 1, 2010.

With the incorporation of new coatings categories, the coating categories currently contained in the rule would be either eliminated or subsumed into the new categories. The affected coating categories include multi-stage topcoat, metallic iridescent topcoat, primer sealer, primer surfacer, precoat, camouflage, specialty coating, and anti-glare safety coating. The VOC limit for solvents would be reduced from either 780 or 72 grams per liter (g/l) to 25 g/l.

General Requirements

The proposed rule amendments would prohibit the application, manufacturing, blending, repackaging for sale, supplying, offering for sale, distributing, or selling any coating that does not meet the proposed VOC limits, unless emissions are controlled by an emission control system.

The BAAQMD proposes to eliminate some recordkeeping requirements when the new VOC limits go into effect. These changes are discussed in greater detail in the sections below. Changes in recordkeeping would not, however, preempt requirements on limitations contained in a facility's permit to operate.

Requirements for Mobile Refinishing Operations

Mobile refinishers often operate in multiple locations and their operations are difficult to track and inspect. Therefore, it is difficult to determine the compliance status of these operations. While many established mobile franchises make efforts to comply with Rule 8-45, others may operate in the District for only a short time or illegally (with non-compliant coatings and without proper filtration and recordkeeping). To address this, provisions specific to mobile refinishing operations are being added to the rule.

Mobile refinishers would be required to register their operations with the District and upon request, notify the District of the location of their operations. Mobile refinishers would have to provide the District, on request, with a list of scheduled clients. During operations, mobile refinishers currently have to comply with the same requirements as stationary refinishers (i.e. use of compliant coatings and proper filtration equipment, and maintenance of records on coating and solvent use).

Administrative Requirements

The proposed amendments would require manufacturers and re-packagers of automotive coatings and components to provide additional written information on the following physical properties on the product label, product technical data sheets or the equivalent.

Effective, October 1, 2009, the proposed amendments would require manufacturers and re-packagers of automotive coatings and components to label all containers with the coating use category and the VOC content. The VOC content would also be required for cleanup and surface preparation solvents.

The proposed amendments would simplify recordkeeping requirements for automotive refinishing operations that are subject to Rule 8-45. Once the new VOC limits take effect, weekly records on the mix ratio of components in the coating and amount of coatings use, and daily records of mix ratios and the amount of each specialty coating would no longer be required. Monthly totals would be required. Operators would be required to keep rule specified records for a minimum of three years.

The proposed rule amendments would require that any person selling coatings keep rule specified records including records for the prohibition of sale requirement by maintaining a detailed log of each coating, coating component or solvent.

The clients of mobile refinishing operators who have had at least five automotive refinishing operations conducted in a year or had at least 25 vehicles refinished within a year would be required to maintain records of the mobile refinisher, dates of service and number of cars serviced. These new requirements would take effect on October 1, 2009.

Test Methods

There are several test methods that can be used to demonstrate compliance with the proposed rule amendment. These include methods for determining VOC, acid, metallic and exempt compound contents of coatings and solvents. Methods for determining control efficiency, transfer efficiency, and HVLP equivalency are also included.

Emission Reductions Expected

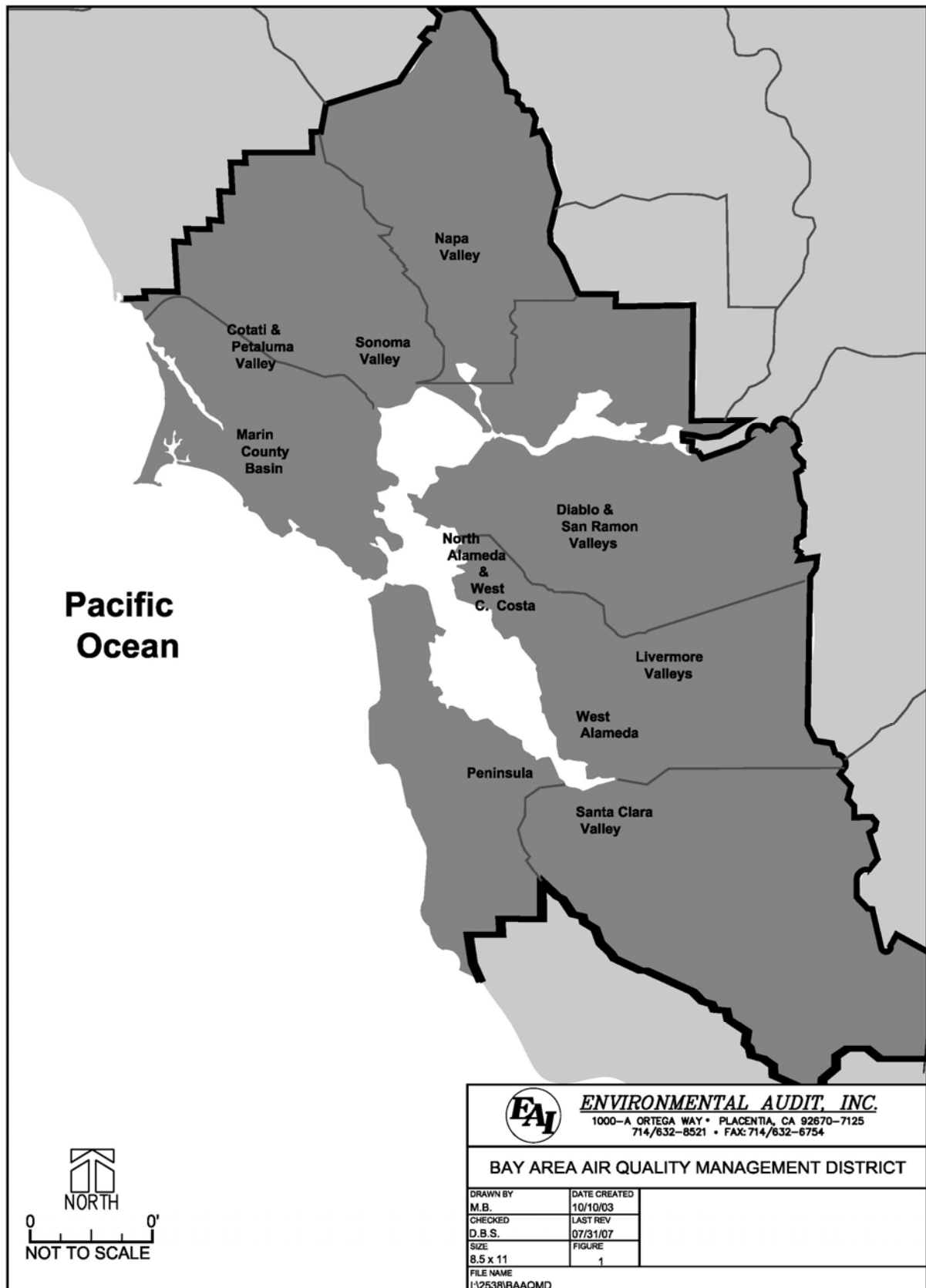
CARB estimated that implementation of the requirements and VOC limits of the SCM would result in an overall emissions reduction of 65 percent. Automotive refinishing is a fairly uniform practice throughout California and, consequently, the relative usage of coating is consistent. At the time the SCM was developed, most districts in California had identical VOC limits, with the exception of the South Coast Air Quality Management District (SCAQMD). Therefore, the reductions estimated for the Bay Area should be consistent with reductions estimated for the entire state.

Affected Area

The proposed rule amendments would apply to facilities under BAAQMD jurisdiction. The BAAQMD jurisdiction includes all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma counties (approximately 5,600 square miles). The San Francisco Bay Area is characterized by a large, shallow basin surrounded by coastal mountain ranges tapering into sheltered inland valleys. The combined climatic and topographic factors result in increased potential for the accumulation of air pollutants in the inland valleys and reduced potential for buildup of air pollutants along the coast. The Basin is bounded by the Pacific Ocean to the west and includes complex terrain consisting of coastal mountain ranges, inland valleys, and bays.

The facilities affected by the proposed rule amendments are located within the jurisdiction of the Bay Area Air Quality Management District (see Figure 1).

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Chapter 3**Environmental Checklist****ENVIRONMENTAL CHECKLIST FORM**

- | | |
|---|--|
| 1. Project Title: | Bay Area Air Quality Management District (BAAQMD)
Proposed Amendments to Regulation 8, Rule 45. |
| 2. Lead Agency Name and Address: | Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109 |
| 3. Contact Person and Phone Number: | Daniel Belik, Planning and Research Division
(415) 749-4786 or dbelik@baaqmd.gov |
| 4. Project Location: | This rule amendment applies to the area within the jurisdiction of the Bay Area Air Quality Management District, which encompasses all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. |
| 5. Project Sponsor's Name and Address: | Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109 |
| 6. General Plan Designation: | The rule amendment applies to automotive refinishing and mobile equipment coating operations which are generally found in industrial and commercial zones.. |
| 7. Zoning | The rule amendment applies to automotive refinishing and mobile equipment coating operations which are generally found in industrial and commercial zones. |
| 8. Description of Project | See "Background" in Chapter 2. |
| 9. Surrounding Land Uses and Setting | See "Affected Area" in Chapter 2. |
| 10. Other Public Agencies Whose Approval Is Required | None |

Environmental Factors Potentially Affected:

The environmental factors checked below would potentially be affected by this Project (i.e., the project would involve one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Mandatory Findings of Significance | |

Determination:

On the basis of this initial evaluation:

- ☒ I find the proposed project COULD NOT have a significant effect on the environment, and that a NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project could have a significant effect on the environment, there will not be significant effects in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

For

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than- Significant Impact	No Impact
I. AESTHETICS.				
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles), so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses.

The proposed amendments to Rule 8, Regulation 45 (Rule 8-45) are primarily focused on motor vehicle and mobile equipment coating operations. These types of facilities are most often located in commercial or industrial areas throughout the Bay Area. Scenic highways or corridors are generally not located in the vicinity of commercial or industrial areas.

Regulatory Background

Visual resources are generally protected by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

I a-d. The proposed amendments to Rule 8-45 would reduce VOC emissions from automotive refinishing operations by incorporating new VOC limits and operational standards. The proposed amendments to Regulation 8-45 are not expected to require construction of new structures. Facilities affected by the proposed rule amendments are expected to comply through the use of reformulated coatings with water based or VOC exempt solvent formulations. While not required, facilities may replace or retrofit existing spray booths and add heaters at facilities that convert from solvent to water-based coatings to assist in the coating drying process. The proposed rule amendments would also allow compliance through the use of air pollution control equipment, e.g., afterburners. Facilities are expected to comply through reformulation of coatings rather than air pollution control equipment because of the significant cost difference. Facilities affected by the proposed rule amendments are primarily located in industrial and commercial areas. The installation of air pollution control equipment, spray booths or heaters is expected to be within the confines of existing commercial or industrial facilities and no construction is expected to occur outside of the boundaries of existing facilities. The proposed amendments are not expected to require the construction of new structures that would degrade the existing visual character of a site, including but not limited to: trees, rock outcroppings, or history buildings. Facilities may use reformulated compliant coatings in place of currently used coatings, but no change in operating practices is expected at affected facilities. The proposed amendments to Regulation 8-45 would also not require any new sources of light or glare, since no light generating equipment would be required to comply with the proposed rule amendments.

Based upon these considerations, no significant adverse aesthetic impacts are expected from the implementation of the amendments to Regulation 8-45.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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II. AGRICULTURE RESOURCES.

In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:

- | | | | | | |
|----|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) | Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) | Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. Some of these agricultural lands are under Williamson Act contracts.

The proposed amendments to Rule 8, Regulation 45 (Rule 8-45) are primarily focused on motor vehicle and mobile equipment coating operations. These types of facilities are most often located in commercial or industrial areas throughout the Bay Area. Agricultural resources are generally not located in the vicinity of industrial, institutional or commercial areas.

Regulatory Background

Agricultural resources are generally protected by the City and/or County General Plans, Community Plans through land use and zoning requirements, as well as any applicable specific plans, ordinances, local coastal plans, and redevelopment plans.

Discussion of Impacts

II a-c. The proposed amendments to Regulation 8-45 would further reduce VOC emissions from automotive refinishing operations in order to reduce ozone levels in the Bay Area and reduce transport of air pollutants to neighboring air basins. Most facilities are expected to comply with Regulation 8-45 by the use of new formulations of automotive coatings. The proposed amendments are not expected to require the construction of new structures outside the confines of existing facilities. Any new or retrofit construction would occur at existing industrial or commercial facilities so no change in land use is expected. Therefore, the proposed rule amendments are not expected to convert any farmland to non-agricultural use of conflict with zoning for agricultural use or a Williamson Act contract.

Based upon these considerations, no significant adverse impacts to agricultural resources are expected from the implementation of the proposed rule amendment.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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III. AIR QUALITY

When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Meteorological Conditions

The summer climate of the West Coast is dominated by a semi-permanent high centered over the northeastern Pacific Ocean. Because this high pressure cell is quite persistent, storms rarely affect the California coast during the summer. Thus the conditions that persist along the coast of California during summer are a northwest air flow and negligible precipitation. A thermal low pressure area from the Sonoran-Mojave Desert also causes air to flow onshore over the San Francisco Bay Area much of the summer.

In winter, the Pacific High weakens and shifts southward, upwelling ceases, and winter storms become frequent. Almost all of the Bay Area's annual precipitation takes place in the November through April period. During the winter rainy periods, inversions are weak or nonexistent, winds

are often moderate and air pollution potential is very low. During winter periods when the Pacific high becomes dominant, inversions become strong and often are surface based winds are light and pollution potential is high. These periods are characterized by winds that flow out of the Central Valley into the Bay Area and often include tule fog.

Topography

The San Francisco Bay Area is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays. Elevations of 1,500 feet are common in the higher terrain of this area. Normal wind flow over the area becomes distorted in the lower elevations, especially when the wind velocity is not strong. This distortion is reduced when stronger winds and unstable air masses move over the areas. The distortion is greatest when low level inversions are present with the surface air, beneath the inversion, flowing independently of the air above the inversion.

Winds

In summer, the northwest winds to the west of the Pacific coastline are drawn into the interior through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately to the south of Mount Tamalpais, the northwesterly winds accelerate considerably and come more nearly from the west as they stream through the Golden Gate. This channeling of the flow through the Golden Gate produces a jet that sweeps eastward but widens downstream producing southwest winds at Berkeley and northwest winds at San Jose; a branch curves eastward through the Carquinez Straits and into the Central Valley. Wind speeds may be locally strong in regions where air is channeled through a narrow opening such as the Carquinez Strait, the Golden Gate, or San Bruno Gap.

In winter, the Bay Area experiences periods of storminess and moderate-to-strong winds and periods of stagnation with very light winds. Winter stagnation episodes are characterized by outflow from the Central Valley, nighttime drainage flows in coastal valleys, weak onshore flows in the afternoon and otherwise light and variable winds.

Temperature

In summer, the distribution of temperature near the surface over the Bay Area is determined in large part by the effect of the differential heating between land and water surfaces. This process produces a large-scale gradient between the coast and the Central Valley as well as small-scale local gradients along the shorelines of the ocean and bays. The winter mean temperature high and lows reverse the summer relationship; daytime variations are small while mean minimum nighttime temperatures show large differences and strong gradients. The moderating effect of the ocean influences warmer minimums along the coast and penetrating the Bay. The coldest temperatures are in the sheltered valleys, implying strong radiation inversions and very limited vertical diffusion.

Inversions

A primary factor in air quality is the mixing depth, i.e., the vertical dimension available for dilution of contaminant sources near the ground. Over the Bay Area, the frequent occurrence of temperature inversions limits this mixing depth and consequently limits the availability of air for dilution. A temperature inversion may be described as a layer or layers of warmer air over cooler air.

Precipitation

The San Francisco Bay Area climate is characterized by moderately wet winters and dry summers. Winter rains (December through March) account for about 75 percent of the average annual rainfall; about 90 percent of the annual total rainfall is received in November to April period; and between June and September, normal rainfall is typically less than 0.10 inches. Annual precipitation amounts show greater differences in short distances. Annual totals exceed 40 inches in the mountains and are less than 15 inches in the sheltered valleys.

Pollution Potential

The Bay Area is subject to a combination of physiographic and climatic factors which result in a low potential for pollutant buildups near the coast and a high potential in sheltered inland valleys. In summer, areas with high average maximum temperatures tend to be sheltered inland valleys with abundant sunshine and light winds. Areas with low average maximum temperatures are exposed to the prevailing ocean breeze and experience frequent fog or stratus. Locations with warm summer days have a higher pollution potential than the cooler locations along the coast and bays.

In winter, pollution potential is related to the nighttime minimum temperature. Low minimum temperatures are associated with strong radiation inversions in inland valleys that are protected from the moderating influences of the ocean and bays. Conversely, coastal locations experience higher average nighttime temperatures, weaker inversions, stronger breezes and consequently less air pollution potential.

Air Quality

Criteria Pollutants

It is the responsibility of the BAAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂) and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards. California has also established standards for sulfate, visibility, hydrogen sulfide, and vinyl chloride.

The state and national ambient air quality standards for each of these pollutants and their effects on health are summarized in Table 3-1. The BAAQMD monitors levels of various criteria pollutants at 25 monitoring stations. The 2007 air quality data from the BAAQMD's monitoring stations are presented in Table 3-2.

Air quality conditions in the San Francisco Bay Area have improved since the Air District was created in 1955. Ambient concentrations of air pollutants and the number of days on which the region exceeds air quality standards have fallen dramatically (see Table 3-3). The Air District is in attainment of the State and federal ambient air quality standards for CO, nitrogen oxides (NO_x), and sulfur dioxides (SO₂). The Air District is not considered to be in attainment with the State PM₁₀ and PM_{2.5} standards.

The 2007 air quality data from the BAAQMD monitoring stations are presented in Table 3-2. All monitoring stations were below the state standard and federal ambient air quality standards for CO, NO₂, and SO₂. The federal 8-hour ozone standard was exceeded one (1) day in the District in 2007, while the state standard was exceeded on nine (9) days. The Bay Area is designated as a non-attainment area for the California 1-hour ozone standard. The State 1-hour ozone standard was exceeded on four (4) days in 2007 in the District most frequently in the Eastern District (Livermore) (see Table 3-2).

All monitoring stations were in compliance with the federal PM₁₀ standards. The California PM₁₀ standards were exceeded on four (4) days in 2007, most frequently in San Jose. The Air District exceeded the federal PM_{2.5} standard on 14 days, most frequently in San Jose, in 2007 (see Table 3-2).

TABLE 3-1**Federal and State Ambient Air Quality Standards**

AIR POLLUTANT	STATE STANDARD CONCENTRATION/ AVERAGING TIME	FEDERAL PRIMARY STANDARD CONCENTRATION/ AVERAGING TIME	MOST RELEVANT EFFECTS
Ozone	0.09 ppm, 1-hr. avg. > 0.070 ppm, 8-hr	0.75 ppm, 8-hr avg. >	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. > 20 ppm, 1-hr avg. >	9 ppm, 8-hr avg.> 35 ppm, 1-hr avg.>	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg. >	0.053 ppm, ann. avg.>	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	0.03 ppm, ann. avg.> 0.14 ppm, 24-hr avg.>	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM10)	20 $\mu\text{g}/\text{m}^3$, annarithmetic mean > 50 $\mu\text{g}/\text{m}^3$, 24-hr average>	50 $\mu\text{g}/\text{m}^3$, annual arithmetic mean > 150 $\mu\text{g}/\text{m}^3$, 24-hr avg.>	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Suspended Particulate Matter (PM2.5)	12 $\mu\text{g}/\text{m}^3$, annual arithmetic mean>	15 $\mu\text{g}/\text{m}^3$, annual arithmetic mean> 35 $\mu\text{g}/\text{m}^3$, 24-hour average>	Decreased lung function from exposures and exacerbation of symptoms in sensitive patients with respiratory disease; elderly; children.
Sulfates	25 $\mu\text{g}/\text{m}^3$, 24-hr avg. >=		(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 $\mu\text{g}/\text{m}^3$, 30-day avg. >=	1.5 $\mu\text{g}/\text{m}^3$, calendar quarter>	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to give an extinction coefficient >0.23 inverse kilometers (visual range to less than 10 miles) with relative humidity less than 70%, 8-hour average (10am – 6pm PST)		Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent

TABLE 3-2
Bay Area Air Pollution Summary - 2007

MONITORING STATIONS	OZONE						CARBON MONOXIDE			NITROGEN DIOXIDE			SULFUR DIOXIDE			PM ₁₀				PM _{2.5}				
	Max 1-hr	Cal Days	Max 8-hr	Nat Days	Cal Days	3-Yr Avg	Max 1-hr	Max 8-hr	Nat/ Cal Days	Max 24-hr	Ann Avg	Nat/ Cal Days	Max 24-hr	Ann Avg	Nat/ Cal Days	Ann Avg	Max 24-hr	Nat Days	Cal Days	Max 24-hr	Nat Days	3-Yr Avg	Ann Avg	3-Yr Avg
North Counties	(ppb)						(ppm)			(ppb)			(ppb)			(µm ³)				(µm ³)				
Napa	74	0	61	0	2	57	3.2	2.0	0	53	10	0	-	-	-	21.4	50	0	0	-	-	-	-	-
San Rafael	72	0	57	0	0	48	2.8	1.3	0	57	14	0	-	-	-	17.5	56	0	1	-	-	-	-	-
Santa Rosa	71	0	59	0	0	47	2.6	1.7	0	46	11	0	-	-	-	17.1	37	0	0	32.0	0	30.4	7.6	8.1
Vallejo	78	0	66	0	0	54	3.3	2.7	0	58	11	0	4	1.3	0	19.0	52	0	2	40.8	4	36.2	9.8	9.8
Coast/Central Bay																								
Richmond	-	-	-	-	-	-	-	-	-	-	-	-	7	1.6	0	-	-	-	-	-	-	-	-	-
San Francisco	60	0	49	0	0	45	2.5	1.6	0	69	16	0	6	1.5	0	21.9	70	0	2	45.2	5	29.3	8.7	9.3
San Pablo	74	0	51	0	0	47	2.4	1.2	0	52	12	0	5	1.6	0	20.6	57	0	2	-	-	-	-	-
Eastern District																								
Benicia	83	0	71	0	1	n/a	1.1	0.6	0	39	n/a	0	7	n/a	0	n/a	31	0	0	-	-	-	-	-
Bethel Island	93	0	78	0	4	73	1.1	0.8	0	48	8	0	5	1.5	0	18.8	49	0	0	-	-	-	-	-
Concord	105	1	81	0	4	73	2.2	1.4	0	49	11	0	5	1.7	0	16.8	52	0	2	46.2	7	34.0	8.4	8.9
Crockett	-	-	-	-	-	-	-	-	-	-	-	-	9	2.0	0	-	-	-	-	-	-	-	-	-
Fairfield	89	0	67	0	0	66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Livermore	120	2	91	1	3	77	3.3	1.8	0	52	13	0	-	-	-	19.8	75	0	2	54.9	3	34.8	9.0	9.3
Martinez	-	-	-	-	-	-	-	-	-	-	-	-	8	1.7	0	-	-	-	-	-	-	-	-	-
Pittsburg	100	1	74	0	2	70	2.8	1.5	0	51	10	0	7	2.2	0	19.4	59	0	4	-	-	-	-	-
South Central Bay																								
Fremont	79	0	68	0	0	58	2.5	1.6	0	58	14	0	-	-	-	19.6	61	0	1	51.2	2	30.4	8.7	9.4
Hayward	75	0	65	0	0	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redwood City	77	0	69	0	0	51	5.5	2.3	0	57	13	0	-	-	-	19.6	56	0	1	45.4	1	31.0	8.3	8.9
San Leandro	71	0	54	0	0	52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Santa Clara Valley																								
Gilroy	91	0	70	0	0	70	-	-	-	-	-	-	-	-	-	-	-	-	-	21.5	0	n/a	n/a	n/a
Los Gatos	84	0	65	0	0	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
San Jose Central	83	0	68	0	0	61	3.5	2.7	0	65	17	0	-	-	-	22.0	69	0	3	57.5	9	38.3	10.7	11.1
San Jose, Tully Rd	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.6	78	0	3			-	-	-
San Martin	96	1	73	0	4	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunnyvale	77	0	68	0	0	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Days over Standard		4		1	9				0			0			0			0	4		14			

(ppm) = parts per million, (pphm) = parts per hundred million, (ppb) = parts per billion

TABLE 3-3
Bay Area Air Quality Summary
Days over standards

YEAR	OZONE			CARBON MONOXIDE				NO ₂	SULFUR DIOXIDE		PM10		PM2.5
	1-Hr	8-Hr		1-Hr		8-Hr		1-Hr	24-Hr		24-Hr*		24-Hr**
	Cal	Nat	Cal	Nat	Cal	Nat	Cal	Cal	Nat	Cal	Nat	Cal	Nat
1996	34	-	-	0	0	0	0	0	0	0	0	3	-
1997	8	-	-	0	0	0	0	0	0	0	0	4	-
1998	29	16	-	0	0	0	0	0	0	0	0	5	-
1999	2	9	-	0	0	0	0	0	0	0	0	12	-
2000	12	4	-	0	0	0	0	0	0	0	0	7	1
2001	15	7	-	0	0	0	0	0	0	0	0	10	5
2002	16	7	-	0	0	0	0	0	0	0	0	6	5
2003	19	7	-	0	0	0	0	0	0	0	0	6	0
2004	7	0	-	0	0	0	0	0	0	0	0	7	1
2005	9	1	-	0	0	0	0	0	0	0	0	6	0
2006	18	12	-	0	0	0	0	0	0	0	0	15	10
2007	4	1	9	0	0	0	0	0	0	0	0	4	14

* PM10 is sampled every sixth day – actual days over standard can be estimated to be six times the numbers listed.

** 2000 is the first full year for which the Air District measured PM2.5 levels.

Toxic Air Pollutants

Table 3-4 (BAAQMD, 2007) contains a summary of ambient air toxics monitoring data of TACs measured at monitoring stations in the Bay Area by the District in 2003.

Regulatory Background

Criteria Pollutants

At the federal level, the Clean Air Act (CAA) Amendments of 1990 give the U.S. EPA additional authority to require states to reduce emissions of ozone precursors and particulate matter in non-attainment areas. The amendments set attainment deadlines based on the severity of problems. At the state level, CARB has traditionally established state ambient air quality standards, maintained oversight authority in air quality planning, developed programs for reducing emissions from motor vehicles, developed air emission inventories, collected air quality and meteorological data, and approved state implementation plans. At a local level, California's air districts, including the BAAQMD, are responsible for overseeing stationary source emissions, approving permits, maintaining emission inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA.

TABLE 3-4**Summary of 2003 BAAQMD Ambient Air Toxics Monitoring Data**

Compound	LOD (ppb) ⁽¹⁾	% of Samples < LOD ⁽²⁾	Max. Conc. (ppb) ⁽³⁾	Min. Conc. (ppb) ⁽⁴⁾	Mean Conc. (ppb) ⁽⁵⁾
Acetone	0.30	0	121.4	0.6	6.80
Benzene	0.10	1.78	2.4	0.5	0.401
1,3-butadiene	0.15	75.7	0.89	0.075	0.12
Carbon tetrachloride	0.01	0	0.16	0.09	0.108
Chloroform	0.02	62.5	1.47	0.01	0.024
Ethylbenzene	0.10	44.2	0.90	0.05	0.135
Ethylene dibromide	0.02	100	0.01	0.01	0.01
Ethylene dichloride	0.10	100	0.05	0.05	0.05
Methylene chloride	0.50	82.9	3.40	0.25	0.356
Methyl ethyl ketone	0.20	7.7	5.80	0.1	0.496
Methyl tert-butyl ether	0.30	32.9	4.80	0.15	0.532
Perchloroethylene	0.01	42.4	0.28	0.005	0.026
Toluene	0.10	0.2	6.0	0.05	1.062
1,1,1-Trichloroethane	0.05	72.3	2.47	0.025	0.084
Trichloroethylene	0.05	93.8	0.33	0.025	0.029
Trichlorofluoromethane	0.01	0	.046	0.18	0.266
1,1,2-trichlorotrifluoroethane	0.01	0	1.16	0.06	0.077
Vinyl chloride	0.30	100	0.15	0.15	0.15
m/p-xylene	0.10	2.8	3.40	0.05	0.535
o-xylene	0.10	27.9	1.30	0.05	0.186

NOTES: Table 3-4 summarizes the results of the BAAQMD gaseous toxic air contaminant monitoring network for the year 2003. These data represent monitoring results at 19 of the 20 separate sites at which samples were collected. Data from the Fort Cronkhite "clean-air" background site was not included. Data from the Oakland-Davie Stadium site was available from January through March.

- (1) "LOD" is the limit of detection of the analytical method used.
- (2) "% of samples < LOD" is the percent of the total number of air samples collected in 2003 that had pollutant concentrations less than the LOD.
- (3) "Maximum Conc." is the highest daily concentration measured at any of the 19 monitoring sites.
- (4) "Minimum Conc." is the lowest daily concentration measured at any of the 19 monitoring sites.
- (5) "Mean Conc." is the arithmetic average of the air samples collected in 2003 at the 19 monitoring sites. In calculating the mean, samples with concentrations less than the LOD were assumed to be equal to one half the LOD concentration.

The BAAQMD is governed by a 22-member Board of Directors composed of publicly-elected officials apportioned according to the population of the represented counties. The Board has the authority to develop and enforce regulations for the control of air pollution within its jurisdiction. The BAAQMD is responsible for implementing emissions standards and other requirements of federal and state laws. It is also responsible for developing air quality planning documents required by both federal and state laws.

Toxic Air Contaminants

TACs are regulated in the District through federal, state, and local programs. At the federal level, TACs are regulated primarily under the authority of the CAA. Prior to the amendment of the CAA in 1990, source-specific National Emission Standards for Hazardous Air Pollutants (NESHAPs) were promulgated under Section 112 of the CAA for certain sources of radionuclides and Hazardous Air Pollutants (HAPs).

Title III of the 1990 CAA amendments requires U.S. EPA to promulgate NESHAPs on a specified schedule for certain categories of sources identified by U.S. EPA as emitting one or more of the 189 listed HAPs. Emission standards for major sources must require the maximum achievable control technology (MACT). MACT is defined as the maximum degree of emission reduction achievable considering cost and non-air quality health and environmental impacts and energy requirements. All NESHAPs were to be promulgated by the year 2000. Specific incremental progress in establishing standards must be made by the years 1992 (at least 40 source categories), 1994 (25 percent of the listed categories), 1997 (50 percent of remaining listed categories), and 2000 (remaining balance). The 1992 requirement was met; however, many of the four-year standards were not promulgated as scheduled. Promulgation of those standards has been rescheduled based on court ordered deadlines, or the aim to satisfy all Section 112 requirements in a timely manner.

Many of the sources of TACs that have been identified under the CAA are also subject to the California TAC regulatory programs. CARB developed three regulatory programs for the control of TACs. Each of the programs is discussed in the following subsections.

Control of TACs Under the TAC Identification and Control Program: California's TAC identification and control program, adopted in 1983 as Assembly Bill 1807 (AB 1807) (California Health and Safety Code §39662), is a two-step program in which substances are identified as TACs, and airborne toxic control measures (ATCMs) are adopted to control emissions from specific sources. Since adoption of the program, CARB has identified 18 TACs, and CARB adopted a regulation designating all 189 federal HAPs as TACs.

Control of TACs Under the Air Toxics "Hot Spots" Act: The Air Toxics Hot Spot Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code §39656) establishes a state-wide program to inventory and assess the risks from facilities that emit TACs and to notify the public about significant health risks associated with those emissions. Inventory reports must be updated every four years under current state law. The BAAQMD uses a maximum individual cancer risk of 10 in one million, or an ambient concentration above a non-cancer reference exposure level, as the threshold for notification. Senate Bill (SB) 1731, enacted in 1992 (California Health and Safety Code §44390 et seq.), amended AB 2588 to include a requirement for facilities with significant risks to prepare and implement a risk reduction plan which will reduce the risk below a defined significant risk level within specified time limits. At a minimum, such facilities must, as quickly as feasible, reduce cancer risk levels that exceed 100 per one million. The BAAQMD adopted risk reduction requirements for perchloroethylene dry cleaners to fulfill the requirements of SB 1731.

Targeted Control of TACs Under the Community Air Risk Evaluation Program: In 2004, BAAQMD established the Community Air Risk Evaluation (CARE) program to identify locations with high emissions of toxic air contaminants (TAC) and high exposures of sensitive populations to TAC and to use this information to help establish policies to guide mitigation strategies that obtain the greatest health benefit

from TAC emission reductions. For example, BAAQMD will use information derived from the CARE program to develop and implement targeted risk reduction programs, including grant and incentive programs, community outreach efforts, collaboration with other governmental agencies, model ordinances, new regulations for stationary sources and indirect sources, and advocacy for additional legislation.

Discussion of Impacts

III a. Regulation 8-45 was first adopted in 1989 to set VOC limits on various types of paints and surface preparation solvents used in automotive refinishing. The objectives of the proposed rule amendments are to further reduce VOC emissions from automotive refinishing by incorporating the VOC limits and operations standards contained in the CARB's SCM for Automotive Coatings and Control Measure SS1 of the 2005 Ozone Strategy. Because the proposed amendments directly implement a control measure from the 2005 Ozone Strategy, the proposed amendments to Regulation 8-45 are in compliance with the local air quality plan. The amendments to Regulation 8-45 are expected to provide beneficial impacts by reducing VOC emission associated with the use of automotive coatings, which in turn will contribute to attaining the state and federal ambient air quality standards. Therefore, the proposed rule amendments do not conflict or obstruct with the implementation of an applicable air plan.

III b, c, d, and f.

Construction Emissions: It is expected that operators of affected facilities will comply with the proposed rule amendments using reformulated coating products and the proposed amendments do not require any construction directly. Facilities who decide to use reformulated coatings may need to install, replace or retrofit spray booths and add heaters. No major construction activities are expected related to the proposed rule amendments as the equipment (spray booths, heaters) would generally come prefabricated requiring minor assembly, so no significant air quality impacts associated with construction activities are expected.

Operational Emissions: Regulation 8-45 was first adopted in 1989 to set VOC limits on various types of paints and surface preparation solvents used in automotive refinishing. In October 2005, CARB estimated that implementation of the requirements and VOC limits of the SCM would result in an overall emission reduction of 65 percent. Table 3-5 presents the VOC emissions in the BAAQMD by each coating category and the expected VOC emission reduction based on CARB's estimated reductions. The amendments to Regulation 8-45, would further reduce VOC emissions from automotive refinishing operations by about 3.7 tons per day or about 63 percent of the Bay Area automotive refinishing emissions, providing an environmental benefit. The Bay Area is not yet in attainment of state ozone standards, so the region must implement all feasible measures to reduce the pollutants that form ozone (NO_x and VOC).

Historically, some members of industry identified seven areas of potential concern that they believe could result in increased indirect VOC emissions due to a requirement to lower the VOC content of coatings. Those concerns are addressed below and are based on CARB's Staff Report for the Proposed Suggested Control Measure (SCM) for Automotive Coatings (CARB, 2005) which is summarized below and incorporated by this reference.

Will the use of lower VOC automotive coatings result in a thicker film coating?

No. In previous rulemakings on coatings, some industry representatives contended that lower VOC coatings are formulated with high solids contents and were therefore difficult to handle during

application, tending to produce a thick film when applied. A thicker film supposedly indicates that a smaller surface area is covered with a given amount of material, thereby increasing VOC emissions per unit area covered as compared to higher VOC coatings. Although high solids, low VOC coatings are being used, the recommended film thickness for these coatings is similar to that for higher VOC coatings. Thus, a lower VOC coating would cover the same or larger surface area than a higher VOC coating (CARB, 2005).

TABLE 3-5

Estimated VOC Emissions and Reductions From Major Categories Due to Implementation of Regulation 8, Rule 45

Coating Category	VOC Emissions (tpd)	Emission Reductions (tpd)	Percent Reductions (%)
Clear Coating	0.52	0.31	60
Color Coating	2.48	1.68	68
Pretreatment Coating	0.07	0.04	59
Primer	0.34	0.19	56
Single Stage Coating	0.55	0.32	58
Uniform Finish Coating	0.02	0.01	63
Solvents	1.83	1.11	65
TOTAL	5.81	3.66	63

Will the use of lower VOC automotive coatings result in illegal thinning of the product?

Excessive thinning is not expected to be a problem because many of the coatings already comply with the SCM limits. Additionally, the VOC limit for color coatings is expected to be met with the use of water-borne formulations. Even if some thinning occurs, thinning would likely be done with water or exempt solvents. As a result, the potential for excessive thinning is minor and concerns about significant adverse air quality impacts are unfounded (CARB, 2005).

Will the use of lower VOC automotive coatings require additional priming for proper adhesion to the substrate?

No. Automotive coatings primers are currently solvent-borne coatings, and many already meet the VOC limits in the proposed SCM. Manufacturers' data show that substrate preparation for low VOC color coatings is similar to substrate preparation for higher VOC color coatings. No instances of poor adhesion between primers and low VOC color coatings are expected (CARB, 2005).

Will the use of lower VOC automotive coatings require the use of more topcoats?

In previous rulemakings on coatings, some industry representatives have claimed that the proposed lower VOC limits would yield products that provide inferior coverage, resulting in the use of more coatings to provide the same coverage as their higher VOC counterparts. This is not the case with automotive coatings. In fact, some low VOC water-borne automotive coatings currently sold and used in the United States provide greater coverage than solvent-borne automotive coatings. Manufacturers and current users of water-borne automotive coatings have indicated that coverage is superior to that of solvent-borne coatings, and therefore do not require the application of additional coats to achieve the necessary coverage (CARB, 2005).

Will the use of lower VOC automotive coatings require more frequent recoating?

No. Water-borne automotive coatings have been used successfully by the majority of the automobile manufacturers for several years; they are also used in manufacturer's vehicle processing centers, where cars are touched up prior to distribution in the United States. Data from the automotive coatings sector do not support the claim that lower VOC automotive coatings require more frequent recoating (CARB, 2005).

Will the use of lower VOC automotive coatings result in product substitution by the end-users?

There are currently available low VOC automotive coatings with performance characteristics comparable to higher VOC automotive coatings, therefore it is not anticipated that spray technicians will substitute a product from a higher VOC category. Typically, manufacturers market coatings as a system and will not warranty the products' performance if the user deviates from the recommended usage. Additionally, the products within each automotive coatings category are specific to certain applications, and do not lend themselves to use in another coating category (CARB, 2005).

Will the use of lower VOC automotive coatings result in coatings with higher reactivity?

Using the Maximum Incremental Reactivity (MIR) scale as the basis for comparing reactivities of VOCs it is true that, on a per gram basis, some VOCs used in water-borne coatings are more reactive than some VOCs used in solvent-borne coatings. For example, using the MIR scale as a basis, a typical VOC used in water-borne coatings, such as propylene glycol, is two to three times more reactive than a typical mineral spirits. However, less reactive solvents such as mineral spirits are not extensively used in automotive coatings. Automotive coatings tend to have solvents with higher reactivity such as xylenes and toluene. The reactivity of propylene glycol is approximately one-third the reactivity, on a gram for gram basis, of xylenes and toluene. Additionally, it is anticipated that manufacturers will incorporate the use of water and exempt solvents when formulating to meet the lower VOC limits of the proposed SCM. Based on this information, CARB concluded that the total reactivity of the lower VOC automotive coatings will be less than the reactivity of the higher VOC automotive coatings (CARB, 2005).

Based on the above, the reformulation of these automotive coatings are expected to result in less than significant air quality impacts.

Secondary Criteria Pollutant Emissions: Secondary criteria pollutant emissions could be generated if new, gas-fired space heaters are installed in affected spray booths in facilities where operators replace solvent-borne coatings with water based coatings to comply with the proposed VOC limits. Secondary criteria pollutant emissions from spray booth heaters would depend on the number of facilities that would install heaters. From a review of converted shops, District staff have found that shops supplement heating equipment not with spray booth heaters, but with hand-held forced air blowers/heaters. These are electrically powered. The SCAQMD, in developing amendments for their similar rule, estimated secondary emissions from facilities that may install heaters within their jurisdiction (an estimated 82 facilities). The number of affected facilities within the jurisdiction of the BAAQMD is less, so it is expected that fewer of these heaters would be installed. Even though the District staff review has demonstrated a lack of need for spray booth heaters, using the secondary criteria emissions estimates of affected facilities within the jurisdiction of the SCAQMD provides a conservative estimate of potential emissions in the BAAQMD (see Table 3-6) if additional spray booth heaters were installed. Secondary criteria pollutant emissions estimated for spray booth heaters are not expected to exceed the significance thresholds for criteria pollutants. Therefore, the proposed amendments to Regulation 8-45 are not expected to be significant for secondary criteria pollutants.

TABLE 3-6**Secondary Criteria Emissions from Additional Auto Body Heaters**

Description	VOC (lbs/day)	NO _x (lbs/day)	SO _x (lbs/day)	CO (lbs/day)	PM (lbs/day)
Auto Body Heater Emissions ⁽¹⁾	1.8	33.8	0.2	9.1	2.0
Significance Threshold	80	80	--	--	80
Significant	NO	NO	--	--	NO

(1) Source: SCAQMD, 2005

Toxic Air Contaminants: The purpose of the proposed amendments to Regulation 8-45 is to control VOC emissions from refinishing coatings applied to automobile and mobile equipment primarily by limiting the VOC content of affected coatings. Regulation 8-45 does not directly regulate toxic air contaminant emissions, but may indirectly control TAC emissions to the extent that TACs are also classified as VOCs. Some existing compliant coating formulations contain TACs such as carbon black cobalt compounds, ethylbenzene, formaldehyde, methyl ethyl ketone, ethylene based glycol ethers, trichloroethylene, toluene, xylene, zinc oxide, and isocyanates.

Conventional solvents include chemicals such as toluene, xylene, methyl alcohol, Stoddard Solvent, methyl ethyl ketone, isopropyl alcohol, ethylene glycol monobutyl ether (EGBE), ethylene glycol monomethyl ether (EGME), and ethylene glycol monoethyl ether (EGEE). The coatings and solvents being reformulated to comply with the proposed control measures are such chemicals as propylene glycol monomethyl ethers, depropylene glycol monomethyl ethers (DPM), methyl esters (soy-based) acetone, 3-ethoxypropanoic acid (an ethyl ester), and isopropyl alcohol, as well as water. Table 3-7 provides a summary of toxicity data associated with conventional and products commonly used in reformulated coatings and surface preparation and cleaning solvents.

In general replacement solvents for reformulated products are for the most part common chemicals used in a wide variety of industrial and consumer applications. Their widespread use indicates that users have the ability to use these compounds in a safe manner. Current cleaning formulations contain materials that are as toxic as or more toxic than formulations expected to be used to comply with proposed control measures. Thus, the possible increased use of potentially toxic materials in reformulated solvents/coatings are expected

TABLE 3-7**Toxicity of Conventional and Replacement Solvents**

Conventional Solvents				
Solvents	TLV (ACGIH) (ppm)	PEL (OSHA) (ppm)	STEL⁽²⁾ (ACGIH) (ppm)	IDLH (NIOSH) (ppm)
Toluene	50	200		500
Xylene	100	100	150	900
MEK	200	200	300	3000
Stoddard Solvent	100	500	Not Available	3448
Ethyl Alcohol	1000	1000	Not Available	3300 ⁽³⁾
Methyl Alcohol	200	200	250	6000 ⁽³⁾
Isopropyl Alcohol	400	400	500	2000 ⁽³⁾
EGBE	25	50	Not Available	700
EGEE	5	200	Not Available	500
EGME	5	25	Not Available	200
Replacement Solvents				
Acetone	750	1000	1000	2500 ⁽³⁾
Texanol	Not Established	Not Established	Not Established	Not Established
Di-Propylene Glycol	Not Established	Not Established	Not Established	Not Established
Propylene Glycol	3.21 ⁽¹⁾	Not Established	Not Established	Not Established
Ethylene Glycol	39	Not Established	Not Available	Not Established
PCBTF	25 ⁽⁴⁾	Not Established	Not Established	Not Established
1,1,1-trichloroethane	350	350	450	700
Methylene Chloride	50	500	Not Available	2300
n-Butyl Acetate	150	150	200	1700 ⁽³⁾
t-Butyl Acetate	200	200	Not Available	1500 ⁽³⁾
Isobutyl Acetate	150	200	250	1300 ⁽³⁾
Methyl Acetate	200	200	250	3100 ⁽³⁾
TDI	0.005	0.02	0.02	2.5
HDI	0.005 ⁽⁴⁾	Not Established	Not Established	Not Established
MDI	0.005	0.02	0.02	7.33

(1) 2007 AIHA Workplace Environmental Exposure Level; (2) STEL = short-term exposure limit (usually 15 minutes); and (3) Based on 10 percent of the lower explosive limit.

to be balanced by a concurrent decrease in the use of materials in currently used products that are typically more toxic, so toxic air contaminant impacts would not be expected to increase compared to existing conditions. According to the most recent studies conducted for the technological assessment, the new compliant cleaners are being formulated with water-based solutions, soy-based (composed of methyl esters),

acetone, methyl acetate, and isopropyl alcohol blends with acetone and water which have a low toxicity (SCAQMD, 2006). The human health impacts analysis performed in the Final EIR for the 2000 Suggested Control Measure for Architectural Coatings examined the potential increased long-term (carcinogenic and chronic) and short-term (acute) human health impacts associated with the use of various replacement solvents in compliant coating formulations. It was concluded that the general public and coating applicators would not be exposed to either long-term or short-term health risk due to the application of compliant coatings (CARB, 2007).

In addition to toxic air contaminants used as VOCs, some TACs are metals typically found in pigments in some auto refinish paints. CARB's ATCM adopted in 2001, ATCM for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Mobile Equipment Coatings eliminated the use of these two TACs in coatings in California. In 2008, the US EPA promulgated 40 CFR Part 63, Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. This rule, effective throughout the nation, controls emissions of chromium, lead, manganese, nickel and cadmium. It requires that, with some exceptions for minor coating activities, coatings be applied in spray booths with a particulate filter that is 98% efficient. This reduces risk from exposure to these HAPs in paint overspray. The national standard also reduced emissions of methylene chloride used to strip paint, but this is rarely used in vehicle refinishing.

CARB expects that future compliant materials will contain less hazardous materials (or will contain nonhazardous materials) as compared to previous solvent-borne coatings, and cleaning solvents, resulting in an environmental benefit because the reformulated coatings and solvents are less toxic than previous solvent-borne coatings and solvents. The long-term and short-term human health impacts associated with the use of various replacement solvents in compliant coating formulations were evaluated by CARB. It was concluded that the general public and coating applicators would not be exposed to either long-term (carcinogenic or chronic) or short-term (acute) health risks due to exposure to alternative solvents (CARB, 2007). In addition, the proposed amendments to Rule 8-45 do not exempt tertiary butyl acetate as a VOC, based on concerns about toxicity and lack of long term health risk assessments. A number of cleaners are water-based which is not expected to generate toxic air contaminants. Therefore, the proposed amendments are not expected to result in an increase in toxic air contaminants.

III c. CEQA Guidelines indicate that cumulative impacts of a project shall be discussed when the project's incremental effect is cumulatively considerable, as defined in CEQA Guidelines §15065(c). The overall impact of the proposed amendment to the rule is a decrease in VOC emissions. Therefore, the cumulative air quality impacts of the proposed rule amendments are expected to be beneficial.

In June, 2005, the District's Board of Directors adopted a resolution recognizing the link between global climate change and localized air pollution impacts. Climate change, or global warming, is the process whereby emissions of anthropogenic pollutants, together with other naturally-occurring gases, absorb infrared radiation in the atmosphere, leading to increases in the overall average global temperature.

While carbon dioxide (CO₂) is the largest contributor to global warming, methane, halogenated carbon compounds, nitrous oxide, and other species also contribute to climate change. Gases in the atmosphere can contribute to the greenhouse effect both directly and indirectly. Direct effects occur when the gas itself is a greenhouse gas (GHG). While there is relative agreement on how to account for these direct effects of GHG emissions, accounting for indirect effects is more problematic. Indirect effects occur when chemical

transformations of the original compound produce other GHGs, when a gas influences the atmospheric lifetimes of methane, and/or when a gas affects atmospheric processes that alter the radiative balance of the earth (e.g., affect cloud formation).

VOCs have some direct global warming effects. However, they may be considered greenhouse gases due to their indirect effects. VOCs react chemically in the atmosphere to increase concentrations of ozone and may prolong the life of methane. The magnitude of the indirect effect of VOCs is poorly quantified and depends on local air quality. Global warming not only exacerbates ozone formation, but ozone formation exacerbates global warming. Consequently, reducing VOCs to make progress towards meeting California air quality standards for ozone will help reduce global warming.

The use of hand held forced air blowers/heaters on waterborne color coats would result in a negligible increase in energy consumption and, subsequently, a negligible increase in CO₂ emissions. However, this small potential increase in CO₂ emissions would likely be offset by the reduction in VOC emissions (which contribute to the GHG emissions) due to the implementation of the reduced VOC limits. Also, the use of waterborne coatings results in a smaller waste stream. Operators typically use a concentrator that allows paint solids to settle from leftover paint and water used to wash spray equipment. The settled paint is filtered and concentrated and allowed to dry. The filtered water may be re-used for cleaning or allowed to evaporate. Ultimately, there is less solvent to be transported for reclamation or disposal through incineration resulting in less CO₂ emissions than from solvent-based coatings.

District VOC rules typically allow a facility to reduce emissions to the atmosphere through the use of air pollution abatement equipment as an option to the use of low-VOC products. Such abatement equipment may be thermal or catalytic oxidizers or carbon adsorption. These devices are rarely a cost-effective solution except in the largest facilities, however, if they were employed, emissions of GHG be expected to increase due to the use of natural gas to fire an oxidizer. Historically, low-VOC products have been successfully implemented (CARB, 2008). Because extensive use of air pollution control equipment is not expected to occur due to the proposed rule amendments, no significant increase in GHG emissions are expected.

III e. The proposed project is not expected to result in an increase in odors. The amendments to Regulation 8-45 propose new VOC standards for reducing emissions from automotive refinishing and mobile equipment coating operations. Affected facilities are expected to comply by reformulating coatings with water-based and lower VOC materials. Potential odor impacts associated with the proposed amendments to Regulation 8-45 are not expected to be significant because: (1) the affected facilities are existing facilities located in industrial or commercial areas with appropriate controls in place; (2) the use of any new compliant materials are expected to replace existing automobile and mobile equipment refinishing coating materials such that no additional odors are expected to be generated; (3) the use of future compliant materials must comply with all applicable BAAQMD rules and regulations; and (4) some of the future compliant materials with lower VOC contents may result in lower odor impacts compared to the current materials in use.

Water-based coatings have less solvent than existing solvent-based coatings. Facilities that convert to water-based coatings are assumed to have a beneficial effect on odors. As part of the Final Environmental Assessment for SCAQMD Rule 1151, the SCAQMD compared short-term exposure concentrations of common solvents with odor thresholds (see Table 3-8). The estimated concentrations for the existing conventional VOCs xylene and toluene were estimated to exceed their odor thresholds. Other solvents more commonly used in reformulated coatings (PCBTF and acetone) are expected to be below the applicable odor

thresholds. Therefore, no significant additional odor impacts are expected to result from the proposed amendments to Regulation 8-45.

TABLE 3-8

VOC Concentrations and Odor Thresholds⁽¹⁾

Component	VOC Conc. (ug/m3)	Odor Threshold (ppm)	Odor Threshold (ug/m3)	Exceeds Odor Threshold
Xylene	1,194	0.08	346	Yes
Toluene	1,094	0.16	602	Yes
Methyl Ethyl Ketone	398	2	5,886	No
PCBTF	895	1	7,370	No
Acetone	1,591	3.6	26,531	No
Tertiary-Butyl Acetate	766	4	18,965	NO

(1) Source: SCAQMD, 2005

Based upon these considerations, no significant adverse air quality impacts are expected from the implementation of the proposed rule amendments. In fact, the proposed rule amendments are expected to provide beneficial air quality impacts by reducing VOC emissions.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflicting with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. A wide variety of biological resources are located within the Bay Area.

The areas affected by the proposed rule amendments are located in the Bay Area-Delta Bioregion (as defined by the State's Natural Communities Conservation Program). This Bioregion is comprised of a variety of natural communities, which range from salt marshes to chaparral to oak woodland. The areas affected by the proposed rule amendments are located in industrial, institutional, or commercial areas throughout the Bay Area. The affected areas have been graded to develop various industrial, institutional, or commercial structures. Native vegetation, other than landscape vegetation, has generally been removed from areas to minimize safety and fire hazards. Any new development would fall under compliance with the City or County General Plans.

Regulatory Background

Biological resources are generally protected by the City and/or County General Plans through land use and zoning requirements which minimize or prohibit development in biologically sensitive areas. Biological resources are also protected by the California Department of Fish and Game, and the U.S. Fish and Wildlife Service. The U.S. Fish and Wildlife Service and National Marine Fisheries Service oversee the federal Endangered Species Act. Development permits may be required from one or both of these agencies if development would impact rare or endangered species. The California Department of Fish and Game administers the California Endangered Species Act which prohibits impacting endangered and threatened species. The U.S. Army Corps of Engineers and the U.S. EPA regulate the discharge of dredge or fill material into waters of the United States, including wetlands.

Discussion of Impacts

IV a – f. The proposed rule amendment would only affect equipment or processes related to the automotive and mobile equipment coating operations located at existing facilities in industrial or commercial areas, which have already been greatly disturbed. The primary method of compliance will be to reformulate affected coatings with water-based or exempt solvent formulations. The amendments to Rule 8-45 are not expected to require the construction of any new buildings or other structures. Should air pollution control equipment or heaters be installed, they are expected to be installed within the confines of existing facilities. In general, industrial or commercial areas do not typically support riparian habitat, federally protected wetlands, or migratory corridors. Additionally, special status plants, animals, or natural communities are not expected to be found on or in close proximity to the affected facilities.

The proposed rule amendment would not conflict with local policies or ordinances protecting biological resources, nor local, regional, or state conservation plans, because it will only affect operations at existing automotive and mobile equipment refinishing coating facilities located in industrial and commercial areas. Additionally, the proposed rule amendment will not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan for the same reason.

Based upon these considerations, no significant adverse impacts to biological resources are expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside a formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural and open space uses. Cultural resources are defined as buildings, sites, structures, or objects which might have historical architectural, archaeological, cultural, or scientific importance.

The Carquinez Strait represents the entry point for the Sacramento and San Joaquin Rivers into the San Francisco Bay. This locality lies within the San Francisco Bay and the west end of the Central Valley archaeological regions, both of which contain a rich array of prehistoric and historical cultural resources. The areas surrounding the Carquinez Strait and Suisun Bay have been occupied for millennia given their abundant combination of littoral and oak woodland resources.

The areas with automotive coating facilities affected by the proposed rule amendments are primarily located in industrial, or commercial areas throughout the Bay Area. These sites have already been graded to develop industrial, or commercial facilities and are typically surrounded by uses of similar kind. Cultural resources are generally not located within these areas.

Regulatory Background

The State CEQA Guidelines define a significant cultural resource as a “resource listed or eligible for listing on the California Register of Historical Resources” (Public Resources Code Section 5024.1). A project would have a significant impact if it would cause a substantial adverse change in the significance of a historical resource (State CEQA Guidelines Section 15064.5(b)). A substantial adverse change in the significance of a historical resource would result from an action that would demolish or adversely alter the

physical characteristics of the historical resource that convey its historical significance and that qualify the resource for inclusion in the California Register of Historical Resources or a local register or survey that meets the requirements of Public Resources Code Sections 50020.1(k) and 5024.1(g).

Discussion of Impacts

V a – d. No impacts on cultural resources are anticipated from the proposed rule amendments that would apply to automotive refinishing operations. The automotive refinishing operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial, or commercial facilities. New automotive refinishing operations are expected to be installed in similar areas, and would be compliant with the amendments of the proposed Regulation 8-45. The existing areas have been graded and developed. No new construction activities are expected to be required outside of the existing facility boundaries (outside of already developed areas) due to the adoption of the proposed amendments to Regulation 8-45. Therefore, no significant adverse impacts to cultural resources are expected due to the proposed amendments to Regulation 8-45.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS.				
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Strong seismic groundshaking? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Seismic-related ground failure, including liquefaction? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Landslides? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The facilities affected by the proposed rule amendments are expected to be located primarily in industrial and commercial areas throughout the Bay Area.

The affected areas with automotive refinishing facilities are located in the natural region of California known as the Coast Ranges geomorphic province. The province is characterized by a series of northwest trending

ridges and valleys controlled by tectonic folding and faulting, examples of which include the Suisun Bay, East Bay Hills, Briones Hills, Vaca Mountains, Napa Valley, and Diablo Ranges.

Regional basement rocks consist of the highly deformed Great Valley Sequence, which include massive beds of sandstone inter-fingered with siltstone and shale. Unconsolidated alluvial deposits, artificial fill, and estuarine deposits, (including Bay Mud) underlie the low-lying region along the margins of the Carquinez Straight and Suisun Bay. The estuarine sediments found along the shorelines of Solano County are soft, water-saturated mud, peat and loose sands. The organic, soft, clay-rich sediments along the San Francisco and San Pablo Bays are referred to locally as Bay Mud and can present a variety of engineering challenges due to inherent low strength, compressibility and saturated conditions. Landslides in the region occur in weak, easily weathered bedrock on relatively steep slopes.

The San Francisco Bay Area is a seismically active region, which is situated on a plate boundary marked by the San Andreas Fault System. Several northwest trending active and potentially active faults are included with this fault system. Under the Alquist-Priolo Earthquake Fault Zoning Act, Earthquake Fault Zones were established by the California Division of Mines and Geology along “active” faults, or faults along which surface rupture occurred in Holocene time (the last 11,000 years). In the Bay area, these faults include the San Andreas, Hayward, Rodgers Creek-Healdsburg, Concord-Green Valley, Greenville-Marsh Creek, Seal Cove/San Gregorio and West Napa faults. Other smaller faults in the region classified as potentially active include the Southampton and Franklin faults.

Ground movement intensity during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geological material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill. Earthquake ground shaking may have secondary effects on certain foundation materials, including liquefaction, seismically induced settlement, and lateral spreading.

Regulatory Background

Construction is regulated by the local City or County building codes that provide requirements for construction, grading, excavations, use of fill, and foundation work including type of materials, design, procedures, etc., which are intended to limit the probability of occurrence and the severity of consequences from geological hazards. Necessary permits, plan checks, and inspections are generally required.

The City or County General Plan includes the Seismic Safety Element. The Element serves primarily to identify seismic hazards and their location in order that they may be taken into account in the planning of future development. The Uniform Building Code is the principle mechanism for protection against and relief from the danger of earthquakes and related events.

In addition, the Seismic Hazard Zone Mapping Act (Public Resources Code §§2690 – 2699.6) was passed by the California legislature in 1990 following the Loma Prieta earthquake. The Act required that the California Division of Mines and Geology (DMG) develop maps that identify the areas of the state that require site specific investigation for earthquake-triggered landslides and/or potential liquefaction prior to permitting most urban developments. The act directs cities, counties and state agencies to use the maps in their land use planning and permitting processes.

Local governments are responsible for implementing the requirements of the Seismic Hazards Mapping Act. The maps and guidelines are tools for local governments to use in establishing their land use management policies and in developing ordinances and review procedures that will reduce losses from ground failure during future earthquakes.

Discussion of Impacts

VI a. The automotive refinishing operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. Facilities who decide to use reformulated coatings may need to install, replace or retrofit spray booths and add heaters. However, these would not add significantly to the overall weight of existing facilities. No major construction activities are expected related to the proposed rule amendments as the equipment (spray booths, heaters) would generally come prefabricated requiring minor assembly.

New industrial, institutional, or commercial structures must be designed to comply with the Uniform Building Code Zone 4 requirements. The local cities and counties are responsible for assuring that new construction complies with the Uniform Building Code as part of the issuance of the building permits and can conduct inspections to ensure compliance. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. The goal of the code is to provide structures that will: (1) resist minor earthquakes without damage; (2) resist moderate earthquakes without structural damage, but with some non-structural damage; and (3) resist major earthquakes without collapse, but with some structural and non-structural damage. The Uniform Building Code bases seismic design on minimum lateral seismic forces ("ground shaking"). The Uniform Building Code requirements operate on the principle that providing appropriate foundations, among other aspects, helps to protect buildings from failure during earthquakes. The basic formulas used for the Uniform Building Code seismic design require determination of the seismic zone and site coefficient, which represent the foundation conditions at the site.

The issuance of building permits from the local agency will assure compliance with the Uniform Building Code requirements which include requirements for building within seismic hazard zones. No significant impacts from seismic hazards are expected since no major construction activities are expected due to implementation of the proposed amendments to Regulation 8-45.

VII b. The automotive refinishing operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. Facilities who decide to use reformulated coatings may need to install, replace or retrofit spray booths and add heaters. No major construction activities are expected related to the proposed rule amendments as the equipment (spray booths, heaters) would generally come prefabricated requiring minor assembly. Construction activities are expected to remain within the confines of existing facilities. Therefore, the proposed amendments are not expected to result in soil erosion or the loss of topsoil as no major construction activities would be required.

VII c – e. The automotive refinishing operations that already exist are located within the confines of existing industrial or commercial facilities so no major construction activities are expected. Since the industrial or commercial facilities already exist, no additional structures are expected to be constructed on a geologic unit or soil that is unstable or that would become unstable, or potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse. Likewise, no structures are expected to be constructed on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating

substantial risks to life or property. Compliance with the Uniform Building Code would minimize the impacts associated with existing geological hazards. Construction would not affect soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater. Therefore, no adverse significant impacts to geology and soils are expected due to the proposed amendments to Regulation 8-45.

Based upon these considerations, no significant geology and soils impacts are expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located within an airport land use plan or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Many of the affected facilities handle and process large quantities of flammable, hazardous, and acutely hazardous materials. Accidents involving these substances can result in worker or public exposure to fire, heat, blast from an explosion, or airborne exposure to hazardous substances.

The potential hazards associated with handling such materials are a function of the materials being processed, processing systems, and procedures used to operate and maintain the facilities where they exist. The hazards that are likely to exist are identified by the physical and chemical properties of the materials being handled and their process conditions, including the following events.

- **Toxic gas clouds:** Toxic gas clouds are releases of volatile chemicals (e.g., anhydrous ammonia, chlorine, and hydrogen sulfide) that could form a cloud and migrate off-site, thus exposing individuals. “Worst-case” conditions tend to arise when very low wind speeds coincide with an accidental release, which can allow the chemicals to accumulate rather than disperse.
- **Torch fires (gas and liquefied gas releases), flash fires (liquefied gas releases), pool fires, and vapor cloud explosions (gas and liquefied gas releases):** The rupture of a storage tank or vessel containing a flammable gaseous material (like propane), without immediate ignition, can result in a vapor cloud explosion. The “worst-case” upset would be a release that produces a large aerosol cloud with flammable properties. If the flammable cloud does not ignite after dispersion, the cloud would simply dissipate. If the flammable cloud were to ignite during the release, a flash fire or vapor cloud explosion could occur. If the flammable cloud were to ignite immediately upon release, a torch fire would ensue.
- **Thermal Radiation:** Thermal radiation is the heat generated by a fire and the potential impacts associated with exposure. Exposure to thermal radiation would result in burns, the severity of which would depend on the intensity of the fire, the duration of exposure, and the distance of an individual to the fire.
- **Explosion/Overpressure:** Process vessels containing flammable explosive vapors and potential ignition sources are present at many types of industrial facilities. Explosions may occur if the flammable/explosive vapors came into contact with an ignition source. An explosion could cause impacts to individuals and structures in the area due to overpressure.

For all affected facilities, risks to the public are reduced if there is a buffer zone between industrial processes and residences or other sensitive land uses, or the prevailing wind blows away from residential areas and other sensitive land uses. The risks posed by operations at each facility are unique and determined by a variety of factors. The areas affected by the proposed amendments are typically located in industrial and commercial areas.

Regulatory Background

There are many federal and state rules and regulations that facilities handling hazardous materials must comply with which serve to minimize the potential impacts associated with hazards at these facilities.

Under the Occupational Safety and Health Administration (OSHA) regulations [29 Code of Federal Regulations (CFR) Part 1910], facilities which use, store, manufacture, handle, process, or move highly hazardous materials must prepare a fire prevention plan. In addition, 29 CFR Part 1910.119, Process Safety Management (PSM) of Highly Hazardous Chemicals, and Title 8 of the California Code of Regulations,

General Industry Safety Order §5189, specify required prevention program elements to protect workers at facilities that handle toxic, flammable, reactive, or explosive materials.

Section 112 (r) of the Clean Air Act Amendments of 1990 [42 U.S.C. 7401 et. Seq.] and Article 2, Chapter 6.95 of the California Health and Safety Code require facilities that handle listed regulated substances to develop Risk Management Programs (RMPs) to prevent accidental releases of these substances, U.S. EPA regulations are set forth in 40 CFR Part 68. In California, the California Accidental Release Prevention (CalARP) Program regulation (CCR Title 19, Division 2, Chapter 4.5) was issued by the Governor's Office of Emergency Services (OES). RMPs consist of three main elements: a hazard assessment that includes off-site consequences analyses and a five-year accident history, a prevention program, and an emergency response program.

Affected facilities that store materials are required to have a Spill Prevention Control and Countermeasures (SPCC) Plan per the requirements of 40 Code of Federal Regulations, Section 112. The SPCC is designed to prevent spills from on-site facilities and includes requirements for secondary containment, provides emergency response procedures, establishes training requirements, and so forth.

The Hazardous Materials Transportation (HMT) Act is the federal legislation that regulates transportation of hazardous materials. The primary regulatory authorities are the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Railroad Administration. The HMT Act requires that carriers report accidental releases of hazardous materials to the Department of Transportation at the earliest practical moment (49 CFR Subchapter C). The California Department of Transportation (Caltrans) sets standards for trucks in California. The regulations are enforced by the California Highway Patrol.

California Assembly Bill 2185 requires local agencies to regulate the storage and handling of hazardous materials and requires development of a plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments), an inventory of the hazardous materials, an emergency response plan, and an employee training program. The information in the business plan can then be used in the event of an emergency to determine the appropriate response action, the need for public notification, and the need for evacuation.

Contra Costa County has adopted an industrial safety ordinance that addresses the human factors that lead to accidents. The ordinance requires stationary sources to develop a written human factors program that includes considers human factors as part of process hazards analyses, incident investigations, training, operating procedures, among others.

Discussion of Impacts

VII a - d. Though there are no provisions in the proposed rule amendment rule that would increase the total amount of automotive and mobile equipment coatings currently used by affected facilities. The amendments to Regulation 8-45 propose new VOC standards for automotive coatings and may result in reformulating these products with materials that have a low VOC content or contain water-based and or exempt VOC materials.

There are no provisions in the proposed control measures that would increase the total amount of coatings currently used by affected facilities. The use of new formulations of automotive coatings may alter the

chemical constituents of the solvents used in these operations. CARB concluded in the SCM for automotive coatings that resin manufacturers and coatings formulators will continue the trend of using less hazardous solvents such as PCBTF and propylene glycol in their compliant coatings. It is expected that future compliant coatings will contain less hazardous materials, or nonhazardous materials, as compared to conventional coatings, resulting in a net benefit regarding hazards (CARB 2005). In the SCM, CARB also recommended that each district assess the hazards associated with exempting tertiary butyl acetate (TBAC) as a VOC. Subsequently, several California air districts have partially or completely exempted TBAC in their automotive coating rules. Because of these exemptions and the potential for coatings to be reformulated using TBAC, this analysis includes a discussion of the potential impacts associated with the use of TBAC.

It is assumed that coatings would be reformulated as water based or with exempt solvents such as PCBTF or acetone. There are two hazards to be considered when evaluating hazard impacts from reformulating coatings and cleaning solvents; flammability and ignition/explosions. These hazards were evaluated as part of the SCAQMD's Final Environmental Assessment for Proposed Rule 1151 (SCAQMD, 2005) and is summarized herein. Reformulation with water-based coatings would reduce the risk of flammability, since solvents are not typically included as a significant part of the formulation of these coatings. As shown in Table 3-9, acetone has the same flammability rating as the conventional solvents that would be replaced (toluene, xylene, MEK). PCBTF's National Fire Protection Association (NFPA) Flammability Classification is the least of the solvents evaluated (1 = combustible if heated versus 3 = warning: flammable liquid flash point below 100°F for TBAC and acetone). Therefore, no increase in flammability is expected due to reformulation.

The auto-ignition temperature of a substance is the temperature at or above which a material will spontaneously ignite (catch fire) without an external source of ignition, such as a spark or flame. Flash point is the lowest temperature at which a liquid would have a concentration in the air near the liquid surface which could be ignitable by an external source of ignition (spark or flame). The lower the flash point, the easier it is to ignite the material. TBAC has characteristics that are in the range of the conventional solvents (boiling points, evaporation rates, flash points and explosive limits, auto-ignition temperatures and vapor pressures) for the solvent it would replace. PCBTF also has characteristics that are similar to the solvents likely to be replaced; however, its auto ignition temperature is lower. While the auto-ignition temperature for PCBTF is the lowest of the solvents presented it is still 194°F (97°C) and the flashpoint temperature of 109°F is higher than both the replacement solvents evaluated.

Acetone has characteristics that are similar to the conventional solvents it would likely replace; however, the flash point temperature is the lowest compared to all solvents evaluated. Acetone vapors will not cause an explosion unless the vapor concentration exceeds 26,000 ppm. In contrast, toluene vapors can cause an explosion at 12,000 ppm; the concentration of MEK that could cause an explosion is 14,000 ppm; and the concentration of xylene vapors that could cause an explosion is even lower at 10,000 ppm. Under operating guidelines of working with flammable coatings under well-ventilated areas, as prescribed by the fire department codes, it would be difficult to achieve concentrated streams of such vapors. Therefore, reformulation is not expected to increase, and may actually reduce ignition or explosion hazards.

A number of safety practices and application techniques are recommended by the National Association of Corrosion Engineers (NACE) and the Society for Protective Coatings during the application of coatings and solvents including future compliant coatings and surface preparation and cleaning solvents. Safety practices

include worker isolation areas (applying coatings in restricted areas), use of protective clothing and equipment, use of respiratory protection and an employee education program to educate employees on potential hazards and measures to minimize exposure. Thus, applicators are not expected to require additional training regarding the proper handling or application of compliant coatings containing hazardous materials which will further reduce the applicator's exposure because these safety measures tend to be established in existing affected facilities (SCAQMD 2005).

TABLE 3-9
Chemical Characteristics for Common Solvents

Traditional/Conventional Solvents						
Chemical Compounds	Boiling Point (F)	Flashpoint (F)	Vapor Pressure (mmHg @ 68 F)	Lower Explosive Limit (% by Vol.)	Auto-Ignition Temperature (°C)	Flammability Classification (NFPA)*
Toluene	231	40	22	1.3	530	3
Xylene	292	90	7	1.1	463	3
MEK	175	21	70	2.0	505	3
Isopropanol	180	53	33	2.0	394	3
Butyl Acetate	260	72	10	1.7	420	3
Isobutyl Alcohol	226	82	9	1.2	813	3
Stoddard Solvent	302-324	140	2	0.8	230	2
Petroleum Distillates (Naptha)	314-387	105	40	1.0	550	4
EGBE	340	141	0.6	1.1	472	2
EGME	256	107	6	2.5	285	2
EGEE	275	120	4	1.8	235	2
Potential Replacement Solvents						
Acetone	133	1.4	180	2.6	465	3
Di-Propyl Glycol	451	279	30	1	n/a	1
Propylene Glycol	370	210	0.1	2.6	371	1
Ethylene Glycol	388	232	0.06	3.2	398	1
Texanol	471	248	0.1	0.62	393	1
t-Butyl Acetate	208	59	34	1.5	518	3
PCBTF	282	109	5.3	0.9	97	1

Source: SCAQMD, 2005

*National Fire Protection Association. 0 = minimal; 1 = slight; 2 = moderate; 3 = serious; 4 = severe

The fire departments regulate spray application of flammable or combustible liquids. They require no open flame, spark-producing equipment or exposed surfaces exceeding the ignition temperature of the material being sprayed within the area. For open spraying, as would be the case for the field application (mobile refinishing) of acetone-based coatings, no spark-producing equipment or open flame shall be within 20 feet horizontally and 10 feet vertically of the spray area. Anyone not complying with the guidelines would be in violation of the current fire codes. If the flammable coating container will be exposed to direct sunlight or heat, storage in cool water is recommended. Finally, all metal containers involving the transfer of five gallons or more should be grounded and bonded.

Based upon the above considerations, hazard impacts are expected to be less than significant. Any increase in future compliant coating materials would be expected to result in a concurrent reduction in the number of accidental releases of hazardous materials associated with coating use since less hazardous materials are expected to be used. If manufacturers use solvents such as Texanol, propylene glycol, etc., in future compliant water-borne coatings, no significant adverse hazard impacts would be expected to occur, because in general, these solvents are less flammable solvents as rated by the NFPA. Reformulation is not expected to increase, and may actually reduce ignition or explosion hazards.

VII e – f. In general, the purpose of the proposed rule amendment is to achieve VOC emission reductions through lowering VOC content limits for automobile coatings, which will ultimately improve air quality and reduce adverse human health impacts related to poor air quality. Since automobile refinishing coatings operations would be occurring at existing industrial or commercial facilities, implementation of the proposed rule amendment is not expected to increase or create any new hazards which could adversely affect public/private airports located in close proximity to the affected sites. Therefore, no significant adverse impacts on an airport land use plan or on a private air strip are expected.

VII g. No impacts on emergency response plans are anticipated from the proposed rule amendments that would apply to existing industrial or commercial facilities. The automotive coating operations which already exist are located within the confines of existing industrial or commercial facilities. The proposed rule amendments neither require, nor are likely to result in, activities that would impact the emergency response plan, and new industrial, institutional, or commercial development would consider emergency response as part of the City/County General Plans prior to approval. As discussed under VII a through d above, it is expected that replacement coatings will general be less toxic than currently used solvents.

VII h. No increase in hazards related to wildfires are anticipated from the proposed rule amendment. The automotive coating operations affected by the proposed rule amendment that already exist are located within the confines of existing industrial or commercial facilities. No increase in exposure to wildfires will occur due to the proposed rule amendment.

Based upon these considerations, no significant adverse hazards and hazardous materials impacts are expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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VIII. HYDROLOGY AND WATER QUALITY.

Would the project:

a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j)	Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and affected environment vary substantially throughout the area and include commercial, industrial, residential, agricultural, and open space uses.

The industrial and commercial facilities affected by the proposed rule amendments are located throughout the Bay Area. Affected areas are generally surrounded by other industrial, institutional, or commercial facilities. Reservoirs and drainage streams are located throughout the area and discharge into the Bays. Marshlands incised with numerous winding tidal channels containing brackish water are located throughout the Bay Area.

The affected areas are located within the San Francisco Bay Area Hydrologic Basin. The primary regional groundwater water-bearing formations include the recent and Pleistocene (up to two million years old) alluvial deposits and the Pleistocene Huichica formation. Salinity within the unconfined alluvium appears to increase with depth to at least 300 feet. Water of the Huichica formation tends to be soft and relatively high in bicarbonate, although usable for domestic and irrigation needs.

Regulatory Background

The Federal Clean Water Act of 1972 primarily establishes regulations for pollutant discharges into surface waters in order to protect and maintain the quality and integrity of the nation's waters. This Act requires industries that discharge wastewater to municipal sewer systems to meet pretreatment standards. The regulations authorize the U.S. EPA to set the pretreatment standards. The regulations also allow the local treatment plants to set more stringent wastewater discharge requirements, if necessary, to meet local conditions.

The 1987 amendments to the Clean Water Act enabled the U.S. EPA to regulate, under the National Pollutant Discharge Elimination System (NPDES) program, discharges from industries and large municipal sewer systems. The U.S. EPA set initial permit application requirements in 1990. The State of California, through the State Water Resources Control Board, has authority to issue NPDES permits, which meet U.S. EPA requirements, to specified industries.

The Porter-Cologne Water Quality Act is California's primary water quality control law. It implements the state's responsibilities under the Federal Clean Water Act but also establishes state wastewater discharge requirements. The RWQCB administers the state requirements as specified under the Porter-Cologne Water Quality Act, which include storm water discharge permits. The water quality in the Bay Area is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board.

In response to the Federal Act, the State Water Resources Control Board prepared two state-wide plans in 1991 and 1995 that address storm water runoff: the California Inland Surface Waters Plan and the California Enclosed Bays and Estuaries Plan, which have been updated in 2005 as the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. Enclosed bays are indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works.

San Francisco Bay, and its constituents parts, including Carquinez Strait and Suisun Bay, fall under this category.

The San Francisco Bay Basin Plan identifies the: (1) beneficial water uses that need to be protected; (2) the water quality objectives needed to protect the designated beneficial water uses; and (3) strategies and time schedules for achieving the water quality objectives. The beneficial uses of the Carquinez Strait that must be protected which include water contact and non-contact recreation, navigation, ocean commercial and sport fishing, wildlife habitat, estuarine habitat, fish spawning and migration, industrial process and service supply, and preservation of rare and endangered species. The Carquinez Strait and Suisun Bay are included on the 1998 California list as impaired water bodies due to the presence of chlordane, copper, DDT, diazinon, dieldrin, dioxin and furan compounds, mercury, nickel, PCBs, and selenium.

Discussion of Impacts

VIII a, f. The wastewater and water quality impacts associated with reformulated automotive coatings were evaluated as part of CARB's SCM for Automotive Coatings (CARB, 2005). Discharge of wastewater from automotive coatings facilities to a sanitary sewer can result in the solids portion of the coating accumulating in sewage treatment sludge preventing its beneficial use. Some contaminants pass through and are discharged to lakes, rivers, bays, and oceans. Although the practice is illegal, facility operators may introduce hazardous substances to the sewer system by washing down areas containing over spray and allowing that water to enter the sewer system.

The use of reformulated automotive coatings is not expected to adversely impact water quality. The use of exempt solvents (e.g., acetone and PCBTF) is expected to result in equivalent or fewer water quality impacts than currently used solvents (such as toluene, xylenes, mineral spirits, and methyl ethyl ketone), since the exempt solvents are less toxic. Further, because currently available compliant color coatings are already using water-based technology, no additional water quality impacts from future compliant water-based coatings are expected, although use of water based coatings is expected to increase (CARB, 2005). Finally, the rule amendments are not expected to promote the use of compliant coatings formulated with hazardous solvents that could create adverse water quality impacts. Reformulated coatings are expected to contain less hazardous materials (CARB, 2005). CARB evaluated the potential impact on water due to increased used on TBAC and concluded that the potential risk to surface waters is expected to be low, assuming the material is stored, used and disposed of in accordance with applicable regulations (CARB, 2005). Therefore, the proposed rule amendments are not expected to result in increase violation of any water quality standards or waste discharge requirements, and no decrease in water quality is expected.

VIII b. The automotive refinishing and mobile coating operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial, institutional, or commercial facilities. The 2005 Ozone Strategy addressed the impacts of control measures on water demand. The proposed amendments to Regulation 8-45 are not expected to require a substantial increase in water use. The increase in water use associated with the manufacture of automotive coatings in the SCAQMD was estimated to be 5,396 gallons per day (SCAQMD, 2005). The increased use of water in the Bay Area is expected to be less because fewer automotive coating facilities operate in the Bay Area than in southern California. Conservatively assuming that the rule amendments could result in a maximum increase of about 5,000 gallons, no significant increase in water use is expected due to the reformulation and manufacture of water-based compounds. The proposed amendments are not expected to deplete groundwater

supplies or interfere with groundwater recharge. Therefore, no significant impacts on groundwater supplies are expected due to the proposed amendments to Regulation 8-45.

VIII c - e. Automotive coating operations are expected to comply by reformulating coatings with lower VOC or water-based materials. All affected equipment is primarily located in industrial or commercial areas, where storm water drainage has been controlled and no construction activities outside of the existing facilities are expected to be required. Therefore the proposed amendments are not expected to substantially alter the existing drainage or drainage patterns, result in erosion or siltation, alter the course of a stream or river, or substantially increase the rate or amount of surface water runoff in a manner that would result in flooding onsite or offsite. Nor are the proposed amendments expected to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed amendments are not expected to substantially degrade water quality. Therefore, no significant adverse impacts to storm water runoff are expected.

VIII g – i. The automotive refinishing and mobile equipment coating operations affected by the proposed rule amendments are primarily located within industrial and commercial areas. No major construction activities outside the boundaries of existing facilities are expected due to the adoption of the proposed amendments to Regulation 8-45. Industrial and commercial facilities are generally located to avoid flood zone areas and other areas subject to flooding. The proposed amendments are not expected to require substantial additional construction activities, place any additional structures within 100-year flood zones, or other areas subject to flooding. Therefore, no significant adverse impacts due to flooding are expected.

VIII j. The automotive refinishing coating operation facilities affected by the proposed rule amendments are located within industrial and commercial areas. No major construction activities are expected outside of the boundaries of the existing facilities due to the adoption of the proposed amendments to Regulation 8-45. The proposed amendments are not expected to place any additional structures within areas subject to inundation by seiche, tsunami or mudflow. Therefore, no significant adverse impacts on hydrology/water due to seiche, tsunami or mudflow are expected.

Based upon these considerations, no significant adverse hydrology and water quality impacts are expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to a general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses vary greatly and include commercial, industrial, residential, agricultural, and open space uses. The facilities affected by the proposed rule amendments are primarily located in commercial and industrial areas throughout the Bay Area.

Regulatory Background

Land uses are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

IX a-c. The automotive refinishing and coating operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. Industrial and commercial facilities affected by the proposed rule amendments are expected to comply by reformulating coatings with lower VOC and water-based materials. Any changes are expected to be made within the confines of existing facilities as no major construction activities are expected outside of the confines of the existing facilities is expected to be required due to the adoption of the proposed amendments to Regulation 8-45.

Based upon these considerations, no significant adverse impacts to land use are expected due to the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed rule amendments are primarily located in industrial and commercial areas throughout the Bay Area.

Regulatory Background

Mineral resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

X a-b. The automotive refinishing and coating operations affected by the proposed rule amendment already exist and are primarily located within the confines of existing industrial and commercial facilities. The proposed rule amendments are not associated with any action that would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, or of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, no impacts on mineral resources are expected.

Based upon these considerations, significant mineral resource impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. NOISE. Would the project:				
a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Expose persons to or generate of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be located within the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The facilities affected by the proposed rule amendments are primarily located in industrial and commercial areas throughout the Bay Area. A majority of the affected areas are surrounded by other industrial and commercial facilities and related activities.

Regulatory Background

Noise issues related to construction and operation activities are addressed in local General Plan policies and local noise ordinance standards. The General Plan and noise ordinances generally establish allowable noise limits within different land uses including residential areas, other sensitive use areas (e.g., schools, churches, hospitals, and libraries), commercial areas, and industrial areas.

Discussion of Impacts

XI a-d. The automotive refinishing operations affected by the proposed rule amendment already exist and are primarily located within the confines of existing industrial and commercial facilities. The proposed rule amendments impose limitations on the VOC emissions from these operations. Affected facilities are expected to comply by making a change in formulation of automotive refinishing coatings.

Operators that choose to use water-based automotive coatings to comply with VOC limits may need to replace or retrofit existing spray booths. Since installation is expected to be comprised of installation of pre-fabricated equipment, no heavy construction equipment is expected to be required and noise impacts associated with construction activities would be less than significant.

Modifications or changes associated with the implementation of the proposed amendments will take place at existing facilities that are located in industrial and commercial settings. The existing noise environment at each of the affected facilities is typically dominated by noise from existing equipment onsite, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Noise from the proposed project is not expected to be produced in excess of current operations at each of the existing facilities. Each facility affected will comply with all existing noise control laws or ordinances. Occupational Safety and Health Administration (OSHA) and California-OSHA (Cal/OSHA) have established noise standards to protect worker health. Noise impacts from the proposed rule amendments are expected to be less than significant.

XI. e-f. Though some of the facilities affected by the proposed project may be located at sites within an airport land use plan, or within two miles of a public airport, the addition of new or modification of existing equipment would not expose people residing or working in the project area to the same degree of excessive noise levels associated with airplanes. All noise producing equipment must comply with local noise ordinances and applicable OSHA or Cal/OSHA workplace noise reduction requirements. Based upon the above considerations, significant noise impacts are not expected from the implementation of the proposed project.

Based upon these considerations, significant noise impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area either directly (e.g., by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The areas affected by the proposed rule amendments are primarily located in industrial and commercial areas throughout the Bay Area.

Regulatory Background

Population and housing growth and resources are generally protected and regulated by the City and/or County General Plans through land use and zoning requirements.

Discussion of Impacts

XII. a. Construction activities are not expected to be associated with the proposed rule amendments. Implementation of the proposed rule amendment at each affected facility is not expected to involve the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. In the event that new employees are hired, it is expected that the number of new employees at any one facility would be small. Human population within the jurisdiction of the BAAQMD is anticipated to grow regardless of implementing the proposed project. As a result, the proposed project is not anticipated to generate any significant adverse effects, either direct or indirect, on population growth in the district or population distribution.

XII b-c. Because the proposed rule amendment include modifications and/or changes at existing facilities located in industrial and commercial settings, the proposed project is not expected to result in the creation of

any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of people or housing elsewhere in the Bay Area. Based upon these considerations, significant population and housing impacts are not expected from the implementation of the proposed project.

Based upon these considerations, significant population and housing impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIII. PUBLIC SERVICES. Would the project:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area. The areas affected by the proposed rule amendments are primarily located in industrial or commercial areas throughout the Bay Area.

Given the large area covered by the BAAQMD, public services are provided by a wide variety of local agencies. Fire protection and police protection/law enforcement services within the BAAQMD are provided by various districts, organizations, and agencies. There are several school districts, private schools, and park departments within the BAAQMD. Public facilities within the BAAQMD are managed by different county, city, and special-use districts.

Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate public services are maintained within the local jurisdiction.

Discussion of Impacts

XIII a. Implementation of the proposed rule amendments is not anticipated to significantly alter current operations at existing affected facilities. Although facilities will likely switch to using new formulations of automotive coatings, the overall use of coatings at any one facility is not expected to change to the extent that would increase the chances for fires or explosions requiring a response from local fire departments. As

shown in Section VI – Hazards and Hazardous Materials of this Negative Declaration, the hazard characteristics of the VOC exempt solvents are similar to the hazardous characteristics of the conventional VOC solvents. Further, additional inspections at affected facilities associated with the use of the new formulations by city building departments or local fire departments are not expected to be necessary because it is expected that most compliant coatings will be formulated using water-based technologies. Compliant solvents will have similar hazard attributes to existing conventional coatings. Therefore, the proposed project is not expected to increase the need or demand for additional public services (e.g., fire departments, police departments, schools, parks, government, et cetera) above current levels.

As noted in the “Population and Housing” discussion above, the proposed rule amendments are not expected to induce population growth in any way because the local labor pool (e.g., workforce) is expected to be sufficient to accommodate any additional activities that may be necessary at affected facilities and operation of new or modified equipment is not expected to require additional employees. Therefore, there will be no increase in local population and thus no impacts are expected to local schools or parks.

Based upon these considerations, significant public services impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that there are numerous areas for recreational activities. The facilities areas affected by the proposed rule amendments are located in industrial and commercial areas throughout the Bay Area. Public recreational land uses are generally located adjacent to these areas.

Regulatory Background

Recreational areas are generally protected and regulated by the City and/or County General Plans at the local level through land use and zoning requirements. Some parks and recreation areas are designated and protected by state and federal regulations.

Discussion of Impacts

XIV a-b. As discussed under “Land Use” above, there are no provisions of the proposed project that would affect land use plans, policies, or regulations. Land use and other planning considerations are determined by local governments; no land use or planning requirements will be altered by the proposed rule amendments. Further, the proposed rule amendments would not increase the use of existing neighborhood and regional parks or other recreational facilities or include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment because the proposed rule amendments are not expected to induce population growth.

Based upon these considerations, significant recreation impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC. Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards because of a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles). Transportation systems located within the Bay Area include railroads, airports, waterways, and highways. The Port of Oakland and three international airports in the area serve as hubs for commerce and transportation. The transportation infrastructure for vehicles and trucks in the Bay Area ranges from single lane roadways to multilane interstate highways. The Bay Area contains over 19,600 miles of local streets and roads, and over 1,400 miles of state highways. In addition, there are over 9,040 transit route miles of services including rapid rail, light rail, commuter, diesel and electric buses, cable cars, and ferries. The Bay Area also has an extensive local system of bicycle routes and pedestrian paths and sidewalks. At a regional level, the share of workers driving alone was about 68 percent in 2000. The portion of commuters that carpool was about 12.9 percent in 2000. About 3.2 percent of commuters walked to work

in 2000. In addition, other modes of travel (bicycle, motorcycle, etc.), account for 2.2 percent of commuters in 2000 (MTC, 2004). Cars, buses, and commercial vehicles travel about 143 million miles a day (2000) on the Bay Area Freeways and local roads. Transit serves about 1.7 million riders on the average weekday (MTC, 2004).

The region is served by numerous interstate and U.S. freeways. On the west side of San Francisco Bay, Interstate 280 and U.S. 101 run north-south. U.S. 101 continues north of San Francisco into Marin County. Interstates 880 and 660 run north-south on the east side of the Bay. Interstate 80 starts in San Francisco, crosses the Bay Bridge, and runs northeast toward Sacramento. Interstate 80 is a six-lane north-south freeway which connects Contra Costa County to Solano County via the Carquinez Bridge. State Routes 29 and 84, both highways that allow at-grade crossings in certain parts of the region, become freeways that run east-west, and cross the Bay. Interstate 580 starts in San Rafael, crosses the Richmond-San Rafael Bridge, joins with Interstate 80, runs through Oakland, and then runs eastward toward Livermore. From the Benicia-Martinez Bridge, Interstate 680 extends north to Interstate 80 in Cordelia. Caltrans constructed a second freeway bridge adjacent and east of the existing Benicia-Martinez Bridge. The new bridge consists of five northbound traffic lanes. The existing bridge was re-striped to accommodate four lanes for southbound traffic. Interstate 780 is a four lane, east-west freeway extending from the Benicia-Martinez Bridge west to I-80 in Vallejo.

Regulatory Background

Transportation planning is usually conducted at the state and county level. Planning for interstate highways is generally done by the California Department of Transportation.

Most local counties maintain a transportation agency that has the duties of transportation planning and administration of improvement projects within the county and implements the Transportation Improvement and Growth Management Program, and the congestion management plans (CMPs). The CMP identifies a system of state highways and regionally significant principal arterials and specifies level of service standards for those roadways.

Discussion of Impacts

XV a-b. Compliance with the proposed rule amendments is expected to be achieved through coating reformulations. The proposed rule amendments are not expected to cause a significant increase in traffic relative to the existing traffic load and capacity of the street systems surrounding the affected facilities. The proposed amendments would have no affect on existing automotive coating operations that would change or cause additional transportation demands or services. The proposed rule amendments are not expected to exceed, either individually or cumulatively, the current level of service of the areas surrounding the affected facilities. The work force at each affected facility is not expected to increase as a result of the proposed rule amendment and operation-related traffic is expected to be minimal. Thus, the traffic impacts associated with the proposed rule amendment are expected to be less than significant.

XV c. Though some of the facilities that will be affected by the proposed rule amendment may be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, actions that would be taken to comply with the proposed rule amendment are not expected to significantly influence or affect air traffic patterns. Further, the proposed rule amendment

would not be expected to affect navigable air space. Thus, the proposed project would not result in a change in air traffic patterns including an increase in traffic levels or a change in location that results in substantial safety risks.

XV d - e. The siting of each affected facility is expected to be consistent with surrounding land uses and traffic/circulation in the surrounding areas of the affected facilities. Thus, the proposed rule amendments are not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the affected facilities. The proposed rule amendments are not expected to alter the existing long-term circulation patterns, nor are they expected to require a modification to circulation, thus, no long-term impacts on the traffic circulation system are expected to occur. The proposed rule amendments do not involve construction of any roadways, so there would be no increase in roadway design feature that could increase traffic hazards. Emergency access at each affected facility is not expected to be impacted by the proposed rule amendment. Further, each affected facility is expected to continue to maintain their existing emergency access gates and will not be impacted by the proposed rule amendment.

XV f. No additional parking will be needed because the work force at each facility is not expected to increase as a result of the proposed rule amendments. Therefore, the proposed rule amendment will not result in significant adverse impacts on parking.

XV g. Operation activities resulting from the proposed project are not expected to conflict with policies supporting alternative transportation since the proposed project does not involve or affect alternative transportation modes (e.g. bicycles or buses) because the construction and operation activities related to the proposed project will occur solely in existing industrial, commercial, and institutional areas.

Based upon these considerations, significant transportation/traffic impacts are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less-than- Significant Impact	No Impact
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XVI. UTILITIES AND SERVICE SYSTEMS.

Would the project:

a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The BAAQMD covers all of Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Napa Counties and portions of southwestern Solano and southern Sonoma Counties. The area of coverage is vast (about 5,600 square miles) so that land uses and the affected environment vary greatly throughout the area.

Given the large area covered by the BAAQMD, public utilities are provided by a wide variety of local agencies. The most affected facilities have wastewater and storm water treatment facilities and discharge treated wastewater under the requirements of NPDES permits.

Water is supplied to affected facilities by several water purveyors in the Bay Area. Solid waste is handled through a variety of municipalities, through recycling activities and at disposal sites.

There are no hazardous waste disposal sites within the jurisdiction of the BAAQMD. Hazardous waste generated at area facilities, which is not reused on-site, or recycled off-site, is disposed of at a licensed in-state hazardous waste disposal facility. Two such facilities are the Chemical Waste Management Inc. (CWMI) Kettleman Hills facility in King's County, and the Safety-Kleen facility in Buttonwillow (Kern County). Hazardous waste can also be transported to permitted facilities outside of California. The nearest out-of-state landfills are U.S. Ecology, Inc., located in Beatty, Nevada; USPCI, Inc., in Murray, Utah; and Envirosafe Services of Idaho, Inc., in Mountain Home, Idaho. Incineration is provided at the following out-of-state facilities: Aptus, located in Aragonite, Utah and Coffeyville, Kansas; Rollins Environmental Services, Inc., located in Deer Park, Texas and Baton Rouge, Louisiana; Chemical Waste Management, Inc., in Port Arthur, Texas; and Waste Research & Reclamation Co., Eau Claire, Wisconsin.

Regulatory Background

City and/or County General Plans usually contain goals and policies to assure adequate utilities and service systems are maintained within the local jurisdiction.

Discussion of Impacts

XVI a, b, d and e. The automotive coating operations affected by the proposed rule amendments already exist and are primarily located within the confines of existing industrial or commercial facilities. The proposed rule amendments are not expected to generate a substantial amount of additional wastewater. The impacts on wastewater treatment requirements or wastewater treatment facilities are expected to be less than significant and were further discussed in Section VIII a and f above.

XVI c. Industrial or commercial facilities are expected to comply with the proposed rule amendments by reformulating coatings. Therefore, the proposed amendments are not expected to alter the existing drainage or require the construction of new storm water drainage facilities. Nor are the proposed amendments expected to create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Therefore, no significant adverse impacts on storm drainage facilities are expected.

XVI f and g. Automotive coatings may be classified as hazardous waste if they contain substances listed as toxic or meet other hazard criteria. Because of the high cost of many automotive refinishing coatings, they are used generally in small quantities with little waste. Implementation of the proposed amendments is not expected to increase the amount of coatings used or the waste generated, require additional waste disposal capacity or generate waste that does not meet applicable local, state or federal regulations. The proposed amendments would lower VOC content limits for certain coatings. No change in the amount or character of solid or hazardous waste streams is expected to occur.

Waste paint thinner is usually generated when paint guns and other paint equipment are cleaned. The waste paint thinner is usually collected and mixed with waste paint. In most cases, waste coatings in liquid form must be managed as hazardous waste. The reduction of solvents in automotive coatings is not expected to result in non-hazardous liquid waste coatings. Solvent-based automotive coatings waste will still be classified as hazardous due to ignitability characteristics (CARB, 2005).

It is anticipated that coating formulations will continue the trend of using less hazardous solvents such as PCBTF and propylene glycol in their compliant coatings. It is expected that future compliant coatings will contain less hazardous materials, or nonhazardous materials, as compared to conventional coatings, resulting in a net benefit.

Coating facilities that have filter-type paint booths also generate paint booth exhaust filters. Paint booth exhaust filters are changed every few weeks to few months depending on the amount of painting being done. Waste paint filters need to be tested for ignitability and toxicity characteristics. It is rare that a paint booth filter will meet the definition of hazardous waste assuming that only typical automotive coatings have been used (CARB, 2005). Waste filters are typically thrown into the trash for disposal at a sanitary landfill. It is not anticipated that the proposed rule amendments will increase the quantity or toxicity of paint booth exhaust filters. The proposed rule amendments is not expected to increase the volume of solid or hazardous wastes from automotive coating operations that would require disposal at existing municipal or hazardous waste disposal capacity. Facilities are expected to continue to comply with all applicable federal, state, and local statutes and regulations related to solid and hazardous wastes.

Based upon these considerations, significant impacts to utilities and service systems are not expected from the implementation of the proposed rule amendments.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion of Impacts

XVII a. The proposed rule amendments do not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory, as discussed in the previous sections of the CEQA checklist. The proposed rule amendments are expected to result in emission reductions from industrial and commercial automotive refinishing facilities, thus providing a beneficial air quality impact and improvement in air quality. As discussed in Section IV, Biological Resources and Section V, Cultural Resources, no significant adverse impacts are expected to biological or cultural resources.

XVII b-c. The proposed amendments are expected to result in emission reductions of VOCs from affected automotive refinishing operations, thus providing a beneficial air quality impact and improvement in air quality. The proposed rule amendments are part of a long-term plan to bring the Bay Area into compliance with the state ambient air quality standards for ozone, thus reducing the potential health impacts due to ozone exposure. The proposed rule amendments do not have adverse environmental impacts that are limited individually, but cumulatively considerable when considered in conjunction with other regulatory control projects. The proposed rule amendments are not expected to have environmental effects that will cause

substantial adverse effects on human beings, either directly or indirectly. No significant adverse environmental impacts are expected.

Chapter 4**References**

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